

11729.1 contg

TTAGAGAGGCTTAAGGAAGAAGAGTTAAAAGCAGCAAAGGTTTTTTTGT
TTTGTGTTTGTGTTTGTGAGATGGAGTCTCACTCTGTTGCCCAATGGAGTACAACGGCA
TGATCTCAGCTCTGCAACCTCCGCTCCACGTTCAAGTGATCTCCTGCCTCAGCCTCC
CAAGTAGCTGGGTTACAGGCGCCGCCACCGCTCAGCTAATTTTTTTGTATTTTAGT
AGAGACAGGGTTTACCAGGTGGGCCAGGCTGCTCTTGAACCTCTGACCTCAGGTGATCCA
CCCCTCGGCTCCCAAAGTGCTGGGATTACAGGCGTGAGCCACCACGCCCCGCCCAA
AGCTGTTTCTTTTGTCTTTAGCGTAAAGCTCTCCTGCCATGCAGTATCTACATAACTGACGT
GACTGCCAGCAAGCTCAGTCACTCCGTGGTC

11729-45.21.21.cons1

TAGGATGTGTTGGACCCTCTGTGTCAAAAAAACCTCACAAAGAATCCCCTGCTCATTACA
GAAGAAGATGCATTTAAATATGGGTATTTCAACTTTTTATCTGAGGACAAGTATCCAT
TAATTAATTGTGTCAGAAGAGATTGAATACCTGCTTAAGAAGCTTACAGAAGCTATGGGAG
GAGGTTGGCAGCAAGAACAATTTGAACATTATAAAATCAACTTTGATGACAGTAAAAATG
GCTTTCTGCATGGGAACCTTATTGAGCTTATTGGAAATGGACAGTTTAGCAAAGGCATGGA
CCGGCAGACTGTGCTATGGCAATTAATGAAGTCTTTAATGAACCTTATATTAGATGTGTTA
AAGCAGGGTTACATGATGAAAAAGGGCCACAGACGGAAAACTGGACTGAAAGATGGTT
TGTAATAAAACCAACATAAATTTCTTACTATGTGAGTGAGGATCTGAAGGATAAGAAAGG
AGACATTCTCTTGGATGAAAAATGCTGTGTAGAGTCTTGCCTGACAAAGATGGAAA

11729-45.21.21.cons2

TTAGAGAGGCTACAGAAGGAAGAAGAGTTAAAAGCAGCAAAGCCGGGTTTTTTTGT
TTTGTGTTTGTGTTTGTGAGATGGAGTCTCACTCTGTTGCCCAAGCTCGAGTACAACGGCA
TGATCTCAGCTCGCTGCAACCTCCGCTCCACGTTCAAGTGATCTCCTGCCTCAGCCTCC
CAAGTAGCTGGGATTACAGGCGCCGCCACCGCTCAGCTAATTTTTTTGTATTTTAGT
AGAGACAGGGTTTACCAGGTGGGCCAGGCTGCTCTTGAACCTCTGACCTCAGGTGATCCA
CCCCCTCGGCTCCCAAAGTGCTGGGATTACAGGCGTGAGCCACCACGCCCCGCCCAA
AGCTGTTTCTTTTGTCTTTAGCGTAAAGCTCTCCTGCCATGCAGTATCTACATAACTGACGT
GACTGCCAGCAAGCTCAGTCACTCCGTGGTC

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TCTTTTCTTTTGAATTTCTTCAATTTGTACGTTTGATTTTATGAAGTTGTTCAAGGGCTAA
CTGCTGTGTAATATAGCTTTCTCTGAGTTCTTCACTGATTGTTAAATGAATCCAATTTCTG
AGAGCTTAGATGCAGTTTCTTTTCAAGAGCATCTAATTTGTCTTTAAGTCTTTGGCATAAT
TCTTCTTTTCTGATGACTTTTATGAAGTAAACTGATCCCTGAATCAGGTGTGTTACTGAG
CTGCATGTTTTTAAATTTCTTTTAAATAGCTGCTTCTCAGGACCATAGATAAGCTTAT
TTTGATATTCTTAAAGCTCTTGTGAAGTTGTTTGAATTTCCATAATTTCCAGGTACACTGT
TTATCCAAAACCTTCTAGCTCAGTCTTTTGTGTTTCTGTTTGGACATCTTGTAGTCTG
CTTCAATCTGCTGATGXTTCCATTCAGTCTTCCAGTTCCAGGTGGAGACTTTXCTTTCT
GGAGCTCAGCCTGACAAATGCCTTCTTGTCTTCT

FIG. 1A

000130-10896960

11731.2contig

AGCCAGATGGAGAGCTGCAAGAAGAAGTCAGGATCATGAGGCTCAGTTTCCACAG
CGATGAATGGAGGGCCAAATATGTGGGCTATTACATCTGAAGAACGTACTAAGCATGATA
AACAGTTTGATAACCTCAAACCTTCAGGAGGTTACATAACAGGTGATCAAGCCCGTACTTT
TTTCTACAGTCAGGTCTGCGGGCCCCGGTTTTAGCTGAAATATGGGCCTTATCAGATCTG
AACAAGGATGGGAAGATGGACCAGCAAGAGTTTCTCTATAGCTATGAAACTCATCAAGTTA
AAGTTGCAGGGCCAACAGCTGCCTGTAGTCCTCCCTCTATCATGAAACAACCCCTATGT
TCTCTCCACTAATCTCTGCTCGTTTTGGGATGGGAAGCATGCCCAATCTGTCCATTTCATCAG
CCATTGCCTCCAGTTGCACCTATAGCAACACCCCTTGTCTTCTGCTACTTCAGGGACCAGTAT
TCCTCCCTAATGATGCCTGCTCCCTAGTGCCCTTCTGTTAGTA

11734.1contig

AATAGATTTAATGCAGAGTGTCAACTTCAATTGATTGATAGTGGCTGCCTAGAGTGCTGTG
TTGAGTAGGTTTCTGAGGATGCACCCTGGCTTGAAGAGAAAGACTGGCAGGATTAACAAT
ATCTAAAATCTCACTTGTAGGAGAAACCACAGGCACCAGAGCTGCCACTGGTGCTGGCAC
CAGCTCCACCAAGGGCCAGCGAAGAGCCCAAATGTGAGAGTGGCGGTGAGGCTGGCACCAG
CACTGAAGCCACCCTGGTGCTGGCACTGGCACTGGCACTGTTATTGGTACTGGTACTGGC
ACCAGTGCTGGCACTGGCACTCTCTTGGGCTTTGGCTTTAGCTTCTGCTCCCGCTGGATCC
GGGCTTTGGCCCAAGGGTCCGATATCAGCTTCGTCCAGTTGCAGGGCCCCGGCAGCAATTCTC
CGAGCCGAGCCCAATGCCCAATCGAGCTTAATCTCGCCCTAGCCTTGGCTTCAGCTGCA
GCCTCAGCTGCAGCCTTCAAATCCGCTTCCATCGCCTCTCGGTAC

11734.2contig

GCCAAGAAAGCCCCAAAGGTGAAGCACTCTGGATGGGGAAGAGGATGGCAGCAGTGATCA
GAGTCAGCCTTCTGGAAACCACAGGTGCCCCGAAGGCTCTCAAAGGCCCTAATGGCCTCAAT
GGCCCCCAGGGCTTCAAAGGGCTCCCATAGCCTTTGGGCCCCGAGGGCATCAAGGACTCG
GTTGGCTGCTTGGCCCCGGAGAGCCTTCTCTCCCTGAGATCACCTAAAGCCCGTAGGGGC
AAGCCTCGCCGTAGAGCTGCCAAGCTCCAGTCAATCCCAAGAGCCTGAAGCACCACCCT
CGGGATGTGCCCTTTTCCAAGGGAGCCCAAAATGATTTGGTGAAGTACCTTTTGCTAAAG
ACCAGACGAAGATTCCCATCAAGCGCTGGGACATGCTGAAGGACATCATCAAAGAATACA
CTGATGTGTACCCCGAAATCATTCGAACGAGCAGGCTATTCCTTGGAGAAGGTATTTGGGAT
TCAATTGAAGCAAAATTGATAAGCAATGACCCTTGTACATTCTTCTCAGC

11736.1contig

GAGGTCTCACTATGTTGCCCAGCCTGTCTTGAACCTCCTGGGATCAAGCAATCCACCCATG
TTGCTCTCCAAAAGTGCTGGGATCATAGGCGTGAGCCACCTACCCAGCCACCAATTTTCA
ATCAGGAAGACTTTTTCTTCTTCAAGAGTGAAGCGTTTCCAGAGTATAGCTACACTATT
GCTTGCTGAGGGTGACTACAAAATTCCTTGCTAAAAGGTTAGGATGGGTAAAGAAATTAG
ATTTTCTGAATGCAAAAATAAAATGTGAACCTAATGAACCTTAGGTAATACATATTCATAAA
ATAATTATTCACATATTTCTGATTTATCACAGAAATAATGTATGAAATGCTTTGAGTTTCT
TGGAGTAAACTCCAATTAATCAATCCCAAGAAACCATATTATAAGTATCACTGATAATAAGAA
CAACAGGACCTTGTCTATAAATCTGGATAAGAGAAATAGTCTCTGGGTGTTTGTCTTAAAT
TGATAAAAATTTACTTGTCCATCTTTTAGTTTCAAGATCACAAAA

FIG. 1B

11736.2contig

AAGCGGAAATGAGAAACGAGGGGAAAATCATGTGGTATTGAGCGGAAAACCTGCTGGATGA
CAGGGCTCAGTCCTGTTGGAGAACTCTGGGTGGTGGCTGTAGAACAGGGCCACTCACAGTG
GGGTGCACAGACCAGCAGGGCTCTGTGACCTGTTTGTACAGGTCCATGATGAGGTAAAC
AATACACTGAGTATAAGGGTTGGTTTAGAAACTCTTACAGCAATTTGACAAAAGTAATCTTC
TGTGCAGTGAATCTAAGAAAAAAATTTGGGGCTGTATTTGTATGTTCCCTTTTTTTCATTTTCAT
GTTCTGAGTTACCTATTTTTATTGCATTTTACAAAAGCATCCTTCCATGAAGGACCGGAAGT
TAAAAACAAAGCAGGTCTTTATCACAGCACTGTCTGTAGAACACAGTTTCAGAGTTATCCAC
CCAAGGAGCCAGGGAGCTGGGCTAAACCAAGAATTTTGCTTTTGGTTAATCATCAGGTA
CTTGAGTTGGAATTGTTTTAATCCCATCATTACCAGGCTGGAXGTG

11739-1&2

CCGCGGCTCCTGTCCAGACCCTGACCCTCCCTCCCAAGGCTCAACCGTCCCCCAACAAACCG
CCAGCCTTGTAAGCAAAAGGTTGGACA.ACTACTTTTCCAGAACAGAAAGGAAACTCATGCAT
GAGACATTCAGCAAAAGGTTGGACA.ACTACTTTTCCAGAACAGAAAGGAAACTCATGCAT
CAGAAAAGGTGACTAATAAAGGTACCAGAAAGTATGGCTGCACAAATACCAGAAATCTGA
TCAGATAAAACAGTTTAAAGCAATTTCTGGGGACCTACAATAAACTTACAGAGACCTGCTTT
TTGGACTGTGTTAGAGACTTCACAACAAAGAGAAGTAAAACCTGAAGAGACCACCTGTTCA
GAACATTGCTTACAGAAATATTTAAAAATGACACA.AAGAAATATCCATGAGATTTACAGGAA
TATCATATTCAGCAGAAATGAAGCCCTGGCAGCCAAAGCAGGACTCCTTGGCCAACCACGA
TAGAGAAGTCTGTATGATGAACCTTTGATGAAAGATTGCCAACAGCTGCTTTATTGGAAA
TGAGGACTCATCTGATAGAAATCCCTGAAAGCAGTAGCCACCATGTTCAACCATCTGTCTAT
GACTGTTTGGCAAATGGAAACCGCTGGAGAAACAAAATTGCTATTTACCAGGAATAATCA
CAATAGAAGGTCTTATTTGCTGAGTGAATAATAAGATGCAACATTTGTTGAGGCCTTATGA
TTACAGCAGCTTGGTCACTTCAATTAGAAAAATAAACCAATTTCTTCAATTTGTGACTGTTA
ATTTTAAAGCAACTTATGCTTTCGATCATGTATGAGATAGAAAAATTTTTATTACTCAAAG
TAAAAATAAATCGA

11740.1.contig

GAAAAAAATATAAAACACACTTTTCCGAAAACGGTGGCCCTAAAAGACGAAAAGAAATTT
CACCAATATAAATCCAAATTTATGAAAACCTGACAATTTAATCCAAGAATCACTTTTGTAAA
TGAAGCTAGCAAGTGATGATATGATAAAAATAAACGTGGAGGAAATAAAAAACACAAGACTT
GGCATAAGATATATCCACTTTTGATAATAAACTTGTGAAGCATATTCTTCGACAAATTGTG
AAAGCGTTTCTGATCTTGCTTGTCTCCATTTCAAATAAGGAGGCATATCACAATCCCAAGA
GTAATCAGAAAAAGAAAAAGACATTTTGCATTTTGAGATGAACCAAAAGACACAAAACAA
AACGAACA.AAGTGTATGTCTAAATCTAGCCTCTGAAATAAACCTTGAACATCTCCTACAA
GGCACCGTGAATTTTGTAAATCTAAGCTGAAGAAATGTGATGACTTTTGTGGACATGAAAA
TCAGATGAGAAAACCTGTGGTCTTTCCAAAGCCTGAACTCCCTGAAAACCTTTGCA

FIG. 1C

000780" T089E96E

[illegible]

11766.2.contig

11-3.2.contig

11-5-1&2

ATCTCTTGTAATGCCAAATAATTAATATAAATCTTTGAAACAAGTTCAGATGAAATATAAAAT
CAAAGTTTGCAAAAACGTGAAGATTAACCTTAATTTGCAAAATATTCCTCATTGCCCCAAATC
AGTATTTTTTATTTCTATGCAAAAGTATGCTTCAAACCTCTTAATATGATATATGATATG
ATACACAAACCAGTTTTCAATAGTAAAGCCAGTCACTGTGCAATTGTAAGAAATAGGTA
AAAGATATAAGACACCTTACACACACACACACACACACACACGTTGGCAGCCCAATGAC
AAAAAACAAATTTGGCCTCTCCTAAATTAAGAACATGAAGACCCTTAATTGCTGCCAGGAG
GGAACACTGTGTCAACCCCTCCCTACAATCCAGGTAGTTTCCTTAATCCAATAGCAATCT
GGGCATATTTGAGAGGAGTGATTTGTGACAGCCACGTTCAAATCTCTGTTGGGCAACCAATTCAT
GTCCACCCCACTGCTGCCCTGAAAAATGCCAATAATTTTTCGCTCCCACTTCTGCTGCTGTC
TCTTCCACATCCTCACATAGACCCCAAGCCCGCTGGCCCTGGCTGGGCATCGCAATTGCTG
GTAGAGCAAGTCATAGGTCCTGCTTTCAGTTCACAGAAAGCGATACACCAAAATTCCTGCT
CGGTCAATTGTCATAACCAGAGA

FIG. 1D

11777.1&2.cons

CAGACGGGGTTTCTACTATGTTGGCTAGGCTGGTCTTGAACCTCTGACTTCAGGTGATCTGC
CTGCCTTGGCCTCCCAAAGTCCTGGGATTACAGGCATAAGCCACTGCGCCCCGGCTGATCTG
ATGGTTTCATAAGGCTTTTCCCCCTTTTGTCTCAGCACTTCTCCTTCTGCGCCCATGTGAAG
AAGGACATGTTTGTCTCCCTTCCACCACGATTGTAAGTTGTTTCTGAGGCCTCCCCGGCC
ATGCTGAACCTGTGAGTCAATTAACCTCTTCTTTATAAAATTATCCAGTTTTGGGTATGTC
TTTATTAGTAGAATGAGAACAGACTAATAACAACCTTAAAGGAGACTGACGGAGAGGATT
CTTCTGGATCCCAAGCACTTCTCTGAATGCTACTGACATTCTTCTTGAGGACTTTAAACTG
GGAGATAGAAAACAGATTCCATGGCTCAGCAGCCTGAGAGCAGGGAGGGAGCCAAGCTA
TAGATGACATGGGCAGCCTCCCTGAGGCCAGGTGTGGCCGAACCTGGGCAGTGCTGCAC
CCACCCACCAGGGCCAAGTCTGTCTTGGAGAGCCAAGCCTCAATCACTGCTAGCCTCA
AGTGTCCCCAAGCCACAGTGGCTAGGGGGACTCAGGGAACAGTTCCCAGTCTGCCCTACTT
CTCTTACCTTTACCCCTCATACCTCCAAAGTAGACCATGTTTATGAGGTCCAAAGG

11779.2.contig

AAGCGAGGAAGCCACTGCGGCTCCTGGCTGAAAAGCGCGGCCAGGCTCGGGAACAGAGG
GAACCGGAAGAACAGGACCGGAAGCTGCAGGCTGAAAGGGACAAGCGAATGCGAGAGG
AGCAGCTGGCCCCGGGAGGCTGAAGCCCCGGGCTGAACGTGAGGCCGAGGCCGGAGACGG
GAGGAGCAGGAGGCTCGAGAGAAGCCCGAGCCTGAGCAGGAGGAGCAGGAGCGACTGCA
GAAGCAGAAAAGCAGGAAGCCGAAGCCCCGCTCCCGGGAAGAAGCTGAGCGCCAGCGCCAGG
AGCGGGAAAAGCACTTTCAGAAAGCAGGAACAGGAGAGACAAGAGCGAAGAAAGCGGCTG
GAGGAGATAATGAAGAGGACTCGGAAATCAGAAAGCCGCGGAACCAAGAAGCAGGATGC
AAAGGAGACCGCAGCTAACAAATCCCGCCAGACCTTGTGAAAGCTGTAGAGACTCGGC
CCTCTGGGCTTCCAGAAAGCAATCTATTGACAGAAAGGAAGGAGCTTGGCCCCCAXGGA

11781 & 37.cons

CTCTGTGGAAAACCTGATGAGGAATGAATTTACCAATTACCCATGTTCTCATCCCCAAGCAAA
GTGCTGGGTCTGATTACTGCCAACACAGAGAACGAAGAAGAAGCTTTTCTCATACAGGATC
AGCAGGGCCTCATCACTGCGGCTGGATTCTACTCAGCCACACAGACCGGCTTTCTCTC
CAGTGTGACCTACACACTCACTGCTCTTACCAGATGATGTTGCCAGAGTCAGTAGCCATT
GTTTGTCCCCCAAGTTCCAGGAAGCTGGATTCTTTAAACTAACTGACCATGGACTAGAGG
AGATTTCTTCTGTGCGCCAGAAAGGATTTTCATCCACACAGCAAGGATCCACCTCTGTTCTG
TAGCTGCAGCCACGTGACTGTTGTGACAGAGCAGTGACCATCACAGACCTTCGATGAGC
GTTTGAGTCCAACACCTTCCAAGAACAAACAAACCAATATCAAGTGTACTGTAGCCCCCTTAAT
TTAAGCTTTCTAGAAAGCTTTGGAAGTTTTGTAGATAGTAGAAAGGGGGGCATCACXTGA
GAAAGAGCTGATTTTGTATTTAGGTTTTGAAAAGAAATAACTGAACATATTTTTTAGGCAA
GTCAGAAAGAGAACATGGTCAACCCAAAGCAACTGTAACCTCAGAAATTAAGTTACTCAGA
AATTAAGTAGCTCAGAAATTAAGAAAGAAATGGGTATAATGAACCCCATATACCCCTTCCTTC
TGGATTACCAAATGTTAACATTTTCTCTCAGCTATCCTTCTAAATTTCTCTCTAAATTC
AATTTGTTTATATTTACCTCTGGGCTCAATAAGGGCATCTGTGCAGAAATTTGGAAGCCAT
TTAGAAAATCTTTTGGATTTTCTCTGCTTTATGGCAATATGAATGGAGCTTATTACTGGG
GTGAGGGACAGCTTACTCCATTTGACCAGATTGTTGGCTAACACATCCCGAAGAAATGATT
TTGTCAGGAATTAATGTTATTAATAAATAATTCAGGATATTTTCTCTACAATAAAGTAA
CAAT

FIG. 1E

11781-76-87-37

CTCTGTGGAAAACATGATGAGGAATGAATTTACCATACCCATGTTCTCATCCCCAAGCAAA
GTGCTGGGTCTGATTACTGCAACACAGAGAACGAAGAAGAACTTTTCTCATACAGGATC
AGCAGGGCCTCATCACTGGGCTGGATTCACTACCCACACAGACCGGTTTCTCTC
CAGTGTGACCTACACACTCACTGCTTTACCAGATGATGTTGCCAGAGTCAGTAGCCATT
GTTTGCTCCCCCAAGTTCCAGGAACTGGATTCTTTAACTAACTGACCATGGACTAGAGG
AGATTTCTTCTGTGCGCCAGAAAGGATTTCATCCACACAGCAAGGATCCACCTCTGTTCTG
TAGCTGCAGCCACGTGACTGTTGTGGACAGAGCAGTGACCATCACAGACCTTCGATGAGC
GTTTGAGTCCAACACCTTCCAAGAACAAACAAAACCATATCAGTGTAAGTGTAGCCCCCTTAAT
TTAAGCTTTCTAGAAAGCTTTGGAAGTTTTGTAGATAGTAGAAAGGGGGGCATCACCTGA
GAAAGAGCTGATTTTTGTATTTAGGTTTGAAAAGAAATAACTGAACATATTTTTAGGCAA
GTCAGAAAGAGAATCATGGTCACCCAAAAGCAACTGTAACTCAGAAATTAAGTTACTCAGA
AATTAAGTAGCTCAGAAATTAAGAAAGATGGTATAATGAACCCCATATACCCCTTCCTC
TGGATTACCAATTGTTAACATTTTTCTCTCAGCTATCCTTCTAATTTCTCTAATTTT
AATTTGTTTATATTTACCTCTGGGCTCAATAAGGGCATCTGTGCAGAAATTTGGAAGCCAT
TTAGAAAATCTTTTGGATTTTCTGTGTTTATGGCAATATGAATGGAGCTTATTACTGGG
GTGAGGGACAGCTTACTCCATTGACCAGATTGTTGGCTAACACATCCCCGAAGAATGATT
TTGTCAGGAATTAATGTTATTTAATAAATAATTCAGGATATTTTCTCTACAATAAAGTAA
CAATTA

11784-1 & 2

GGACGACAAGGCCATGGCGATATCGGATCCGAATTCAAGCCTTTGGAATTAAATAAACCT
GGAACAGGGAAGGTGAAAGTTGGAGTGAGATGCTTCCATATCTATACCTTTGTGCACAGT
TGAATCGGAACCTGTTTGGCTTTAGGGCATCTTAGAGTTGATTGATGGAAAAAGCAGACAG
GAACTGGTGGGAGGTCAAGTGGCGAAGTTGCTGAATGTGGAATAACTTACCTTTGTGCTC
CACTTAAACCAGATGTGTTCCAGCTTTCTGACATGCAAGGATCTACTTTAATTCACACT
CTCATTAATAAAATTGAATAAAAGCGAATGTTTGGCACCTGATATAATCTGCCAGGCTATG
TGACAGTAGGAAGGAATGCTTTCCCTTAACAAGCCCCAATGCACTGGTCTGACTTTATAAAT
TATTTAATAAAATGAACATAATC

11785.2.contig

GGCAGTGACATTCACCATCATGGGAACCCACCTTCCCTTTTCTTCAGGATTCTCTGTAGTGG
AAGAGAGCACCCAGTGTGGGCTGAAAACATCTGAAAGTAGGGAGAAGAACCTAAAATA
ATCAGTATCTCAGAGGGCTCTAAGGTCCCAAGAAGTCTCACTGGACATTTAAGTGCCAAC
AAAGGCATACTTTCCGGAATCGCCAACTCAAACTTTCTAACTTCTGTCTCTCTCAGAGACA
AGTGAGACTCAAGAGTCTACTGCTTACTGGCAACTACAGAAAAGTGGTGTACCCAGAA
AAACAGGAGCAATTAGAAATGGTCCAAATTTCAAGCTCCGCAAAACAGGATGTGCTTT
CCTTTGCCCATTTAGGGTTTCTCTCTTTCTCTTTTATTAACCACT

FIG. 1F

TGCGCTGAAAAC.AACGGCCTCCTTTACTGTTAAATGCAGCCACAGGTGCTTAGCCGTGGG
 CATCTCAACCACCAGCCTCTGTGGGGGGCAGGTGGGCGTCCCTGTGGGCCTCTGGGCCCAC
 GTCCAGCCTCTGTCTCTGTGCTTCCGTTCTTCGACAGTGTCCCGGCATCCCTGGTCACTTG
 GTACTTGGCGTGGGCCTCCTGTGCTGCTCCAGCAGCTCCTCCAGGXGGTGGCCCCGCTTCA
 CCGCAGCCTCATGTTGTGTCCGGAGGCTGCTACGGCCTCCTCCTTCCTCGCGAGGGCTGT
 CTTACCCCTCCGGXGCACCTCCTCCAGCTCCAGTGCTGGCGGGCCTGCAGCGTGGCCAGC
 TCGGCCTTGGCCTGCCGCGTCTCCTCCTC.ARAGGCTGCCAGCCGGTCTCGAACTCCTGGC
 GGATC.ACCTGGGCCAGGTTGCTGCGCTCGCTAGAAAGCTGCTCGTTACCGCCTGCGCATC
 CTCCAGCGCCCGCTCCTTCTGCCGCA.AAGGCCCTGCAGACGCAGATTCTCGCCCTCGGCCT
 CCCC.AAGCTGGCCCTTCAGCTCCGAGCACCGCTCCTGAAGCTTCCGCTCCGACTGCTCCAG
 CTGGGAGAGCTCGGCCTCGTACTTGTCCCGTAAGCGCTTGATGCGGCTCTCGGCAGCCTTC
 TCACTCCTCCTTGGCCAGCGCCATGTGCGCCTCCAGCCGGTGAATGACCAGCTCAATCT
 CTTGTCCCGGCCCTTTCGGATTCTTCCCTCAGCTCCTGTTCCCGGTTACGACGCCACGCC
 TCCTCCTTCCTGGTGGCGCCGGCCTCCACGGCTGCCTCTCCAGCTCCAGCTGCTGCTTCA
 GGATTCACTCCATCTGGCGGGCCTGCAGCGTGGCCA

13690.4

CAACTTATTACTTGAAATTATAATATACCGTGTCCGTTTGTGTTTCCAGGCTGTGATATAT
 TTTCTAGTGGTTTGACTTTAAAAATAAATAAGGTTTAAATTTCTCCCC

13693.1

TGCAAGTCACGGGAGTTTATTTTAAATTTTCCCCAGATGGAGACTCTGTGCGCCAGG
 CTGGAGTGCAATGGTGTGATCTTGGCTCACTGCAACCTCCACCTCCTGGGTCAAGCGATT
 CTCTGCCACAGCCTCCCGAGTAGCTGGGATTACAGGTGCCCCGCCACCACACCCAGCTAAT
 TTTTATATTTTAGTAAAGACAGGGTTTCCCCATGTTGGCCAGGCTGGTCTTGAACCTTCTGA
 CCTCAGGTGATCCACCTGCCCTCGCCCTCCCAAAGTGTGGGATTACAGCGGTGAGCTACCC
 GTGCCTGCCCAGCCACTGGAGTTAAAGGACAGTCATGTTGGCTCCAGCCTAAGCGGCCA
 TTTTCCCCCATCAGAAAGCCCGCGCCTCCTGTACCTCAAAATAGGGCACCTGTAAAGTCAG
 TCAGTGAAGTCTCTCCTCTAACTGGCCACCCCGGGCCATTGGCNTCTGACACAGCCTTGCC
 AGGANGCCTGCATCTGCAAAAGCAAAGTTCATTCTTTCCG

13694.1

CAGAGAATCTKAGAAAGATGTCCCGTTTCTTTTAAATGAATGAGAGAAGCCCATTTGTATC
 CCTGAATCATTCAGAAAAGGGCGGCGTGGCGACAGCGCGACCTAGGGATCGATCTGGAG
 GGAATTGGGGAGCGTGACAGACCTCTACCTCGAGCGCGAGGGACCTCCCGCCGGGATGC
 CTGGGGAGCAGATGGACCTACTGGAAGTCAGTTGGAATCAGATTTCTCTCAGCAAGATAC
 TCTTGGCCTGATAATTGAAGATTCTCAGCCTGAAAGCCAGGTTCTAGAGGATGATTCTGGT
 TCTCACTTCAGTATGCTATCTCGACACCTTCCTAATCTCCAGACGCACAAAGAAAATCCTG
 TGTGGATGTTGNGTCCAATCCTTGAACAAACAGCTGGAGAAGAACGAGGAGACCGGTAA
 TAGTGGGTTCAATGAACATTTCAAAAGAAACCAGGTTGCAGACCCTG

FIG. 1G

13694.2

GACTGTCTCTGAACAAGGGACCTCTGACCAGAGAGCTGCAGGAGATGCAGAGTGGTGGCAG
GAGTGGAAAGCCAAAGAACACCCACCTTCTCCCTTGAAGGAGTAGAGCAACCATCAGAAG
ATACTGTTTTATTGCTCTGGTCAAACAAGTCTTCTGAGTTGACAAAACCTCAGGCTCTGGT
GACTTCTGAATCTGCAGTCCACTTTCCATAAGTTCTTGTGCAGACAACCTGTTCTTTTGCTTC
CATAGCAGCAACAGATGCTTTGGGGCTAAAAGGCATGTCCTCTGACCTTGCAAGGTGGTGG
ATTTTGTCTTTTTACAACATGTACATCCTTACTGGGCTGTGCTGTCACAGGGATGTCCTTGG
TGGACTGTTCTGCTATGGGGATATCTTCGTTGGACTGTTCTTCATGCTTAATTGCAGTATTA
GCATCCACATCAGACAGCCTGGTATAACCAGAGTTGGTGGTACTGATTGTAGCTGCTCTT
TGCCACTTCATATGGCACAAGTATTTTCTCAACATCCTGGCTCTGGGAAG

13695.1

GAAATGTATATTTAATCATTTCTCTTGAACGATCAGAACTCTRAATCAGTTTTCTATAACAR
CATGTAATACAGTCACCGTGGCTCCAAGGTCCAGGAAGGCAGTGGTTAACACATGAAGAG
TGTGGGAAGGGGGCTGGAACAAGTATTTCTTTCTTCAAAGCTTCATTCTCAAGGCCT
CAATTCAAGCAGTCATTGTCTTGTCTTCAAAGTCTGTGTGCTTCATGGAAGGTATAT
GTTTGTTCCTTAAATTTGAATTGTGGCCACGAAGGGTCTGGAGATCTAAATTCAGAGTAAG
AAAACCTGAGCTAGAACTCAGGCATTTCTTACAGAAGTGGCTTGCAGGGTAGAATGA
ANGGAAAGAACTTAGAAGCTCAACAAGCTGAAGATAATCCCATCAGGCATTTCCCATAG
GCCTTGCAACTCTGTTCACTGAGAGATGTTATCTG

13695.2

AGTCTGGAGTGAGCAAAACAAGAGCAACAAACAARRAGAAGCCAAAAGCAGAAGGCTCCA
ATATGAACAAGATAAATCTATCTTCAAAGACATATTAGAAGTTGGGAAAATAATTCAATGT
GAACTAGACAAGTGTGTTAAGAGTCTAAGTAAATGCACGTGGAGACAAGTGCATCCCC
AGATCTCAGGGACCTCCCCCTGCTGCTACCTGGGAGTGAGAGGACAGGATAGTGCATG
TTCTTTGTCTCTGAATTTTATGTTATATGCTGTAAATGTTGCTCTGAGGAAGCCCCCTGGAA
AGTCTATCCCAACATATCCACATCTTATATCCACAAATTAAGCTGTAGTATGTACCCTAA
GACGCTGCTAATTGACTGCCACTTCCCAACTCAGGGGGGGCTGCATTTTAGTAATGGGTCA
AATGATTCACTTTTATGATGCTTCCCAAGGTGCTTGGCTTCTCTTCCCAACTGACAAATG
CCCAAGTTGACAAAAATGATCATAATTTAGCATAAACCGAGCAATCGGGGACCCC

13697.1

TAGCTGTCTTCTCACTCTTATGGCAATGACCCCATATCTTAATGGATTAAGATAATGAAA
GTGTATTTCTTACACTCTGTATCTATCACCAGAAGCTGAGGTGATACCCCGCTTGTCAATTGT
CATCCATATTCTGGGACTCAGGGGGGAACCTTCTGGAATATGCCAGGGAGCAATGGCAGA
GGGGCACAGTGCAATCTGGGGGAATGCACATTGGCTCAGCCTGGGTAAATGAGTGATATAC
ATTACCTCTGTTCACTCAATTCCTCAGCAGCAGTCACAAGGCCCCACCAAAATACCAGAG
CGCAAGAAATGTAGTCTCTTGTATGCTTTCTGTGTCCCAACCCAAATCTCATCTTGA
ATTGTAAGCTCCCATAAATCCCATGTGTGTGGGAGGGACCTGGTG

FIG. 1H

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13697.2

ATCATGAGGATACCAAAGGGATGGTACTAAACCATTTGTGTCTGTITTCACACT
GCTTTGAAGATACTACCTGAGACTGGGTAATTTATAAACAAAAGAGATTTAATTGACTCAC
AGTTCTGCATGGCTGAAGAGGCTCAGGAACTTACAGTCATGGTGGAAAGGCAAAGGAGG
AGCAAGGCATGTCTTACATGTCAGTAGGAGAGAGCGAGAGCAGGAGAACCTGCCACTT
ATAAACCATTCAGATCTCATACTCCCTATCATGAGAAAAACATGGAGGAAACCACCTC
ATGATCCAATCACCTCCCGCCAGGTCCCTCCCTCGACACGTGGGGATTATAATTGAGGATT
AGAGGGACACAGAGACAAACCATATCATCATTCATGAGAAATCCACCCTCATAGTCCAAT
CAGCTCTACCAGGCCCCACCTCCAACACTGGGGATTGCAATTCAACATGAGATTGGATG
GGGACACAGATTCAAACCATATCATAC

13699.1&2

CATGGCCTTTCTCCTTAGAGGCCAGAGGTGCTGCCCTGGCTGGGAGTGAAGCTCCAGGCAC
TACCAGCTTTCTGATTTTCCCGTTTGGTCCATGTGAAGAGCTACCACGAGCCCCAGCCTCA
CAGTGTCACCTCAAGGGCAGCTTGGTCTCTTGTCTGTCAGAGGCAGGCTGGTGTGACCCT
GGGAACTTGACCCGGGAACAACAGGTGGCCAGAGTGAGTGTGGCCTGGCCCCCTCAACCT
AGTGTCCGTCTCTCTCTCTGGAGCCAGTCTTGAGTTTAAAGGCATTAAGTGTAGATA
CAAGCTCCTTGTGGCTGGAAAAACACCCCTCTGCTGATAAAGCTCAGGGGGCACTGAGGA
AGCAGAGGGCCCTTGGGGGTGCCCTCTGAAGAGAGCGTCAGGCCATCAGCTCTGTCCCTC
TGGTCTCTCCACGTCTGTCTCTCACCCTCCATCTCTGGGAGCAGCTGCACCTGACTGGCCAC
GCGGGGGCAGTGAGGGCACAGGCTCAGGGTGGCCGGCTACCTGGCACCTATGGCTTAC
AAAGTAGAGTTGGCCCACTTCTCTCCACTGAGGGGAGCACTCTGACTCCTAACAGTCTT
CCTTGGCCTGCCATCATCTGGGGTGGCTGGCTGTCAAGAAAGGCCGGGCATGCTTTCTAAA
CACAGCCACAGGAGGCTTGTAGCCCACTTCCAGGTGGGGAAACAGTCTTAGATAAGTAA
GGTGACTTGCCTAAGCCCTCCAGCACCTTGATCTTGGAGTCTCACAGCAGACTGCATGT
SAACAACCTGCAACCGAAAAACATGCCCTCAGTATAAAA

13703.3

CCAGAACCTCCTTCTCTTGGAGAAATGGCGAGGCCTCTTGGAGACACAGAGGGTTTCACCT
TGGATGACCTCTAGAGAAAATGGCCAAAGAGCCACCTTCTGGTCCCAACCTGCAGACCCC
ACAGCAGTCAGTTGGTCAGCCCTCTCTCTAGAAAGGTCACTTGGCTCCATTGCCCTGCTTCCA
ACCAATGGGCAGGAGACAAGCCCTTATTTCTGCCCCACCCATTCTCCTGTACCAGCACCT
CCGTTTTCACTCAGYGTCTGTCAGCAACCGTACCGTTTACACAGTCA

13705.1

TGCATGTAGTTTTATTTATGTGTTTTGTCTGGAAAAACCAAGTGTCCCAGCAGCATGACTGA
ACATCACTCACTTCCCCTACTTGATCTACAAGGCCAACGCCGAGAGCCCAGACCAGGATTC
CAAACACACTGCACGAGAAATTTGTGGATCCGCTGTACGTAAGTGTCCGTCAGTACCCCA
RACGCTGTTACGTGGCACATGACTGTACAGTGGCACGTAACAGCACTGTACTTTTCTCCCA
TGAACAGTTACCTGCCATGTATCTACATGATTGAGAACAATTTGAACAGTTAATTCTGACA
CTTGAATAATCCCATCAAAAAACGGTAAAACTACTTTGATGTTTGTAAACGACAACATAGCAT
CACTTTACGACAGAATCATCTGGAAAAACAGAACAAACGAATACATACATCTTAAAAAATG
CTGGGGTGGGCCAGGCCACAGCTTCAGGCTGTAAATCCAGCACTTTGGGAGGCTTAAGCG
GGTG

FIG. 11

000T80.T089E960

13705.2

TGGGGCGGAAAGAAGCCAAGGCCAAGGAGCTGGTGGCGGCAGCTGCAGCTGGAGGCCGAG
GAGCAGAGGAAGCAGAAGAAGCGGCAGAGTGTGTGGGGCCTGCACAGATACCTTCACTTG
CTGGATGGAAATGAAAATTACCCGTGTCTTGTGGATGCAGACGGTGATGTGATTTCCTTCC
CACCAATAACCAACAGTGAGAAGACAAAGGTTAAGAAAAACGACTTCTGATTTGTTTTGG
AAGTAACAAGTGCCACCAGTCTGCAGATTGTCAAGGATGTCATGGATGCCCTCATTCTGAA
AATGGCAAGAAATGAAAAAGTACACTTTAGAAAAATAAGAGGAAGGATCACTCTCAGAT
ACTGAAGCCGATGCAGTCTCTGGACAACCTCCAGATCCCACAACGAATCCCAGTGTGGA
AAGGACGGGGCCTTCTTCTGGTGGTGGAACANGTCCCCGGTGGTGGATCTTGAANGGAA
CCTGAANGTGGTGTACCCCGTCCAAGGCCGACCTTGGCCAC

13707.4

TCCCGCGCTCGCAGGGCNCGTGCCACCTGCCYGTCCGCGCGCTCGCTCGCTCGCCCGCCG
GCCGCGCTGCCGACCGYCAGCATGCTGCCGAGAGTGGGCTGCCCGCGCTGCCGCTGCCG
CCGCGCGCGCTGCTGCCGCTGCTGCCGCTGCTGCTGCTGC

13708.1&2

GGCGGGTAGGCATGGAAGTGAAGAACAAGCAAGAGCTTTCAGACTACGTGGGGAAGAAT
GAAAAAACCAAAATTATCGCCAAGATTCAGCAAACGGGACAGGGAGCTCCAGCCCGAGA
GCCTATTATTAGCAGTGAGGAGCAGAAGCAGCTGATGCTGTACTATCACAGAAGACAAGA
GGAGCTCAAGAGATTGGAAGAAATGATGATGCTATTTAAACTCACCATGGGCGCA
TAACACTGCTTTGAAAAGACATTTTCATGGAGTGAAGACATAAAAGTGGAGACCAAGATG
AAGTTCACCACCTGATGACACTTCCAAAGAGATTAGCTCACCT

13709.1

TCTGAAGCTTAAATGTTTTCACTAAATAGCGGATAATGRTAAACACCTATAGCATAGAGTTG
TTTGAGATTAAATGAGATAATACATGTAAAAATTATGTCCCTGGCATAACAGCAAGATTGTTG
TTGTGTTGATGATGATGATGATGATGATAAATTTTTCTATCCCCAGTGCACAACCTGCTTG
AACCTATTAGATAATCAATACATGTTTCTTGAAGTGAATCAATTTCCCCATGTTGTCTGAC
TGATGAAGCCCTACATTTCTTCTAGAGGAGATGACATTTGAGCAAGATCTTAAAGAAAAAT
CAGATGCCTTCACCTGACCACTGCTTGGTGTCCCATGGCACTTTGTACATCTCTCCATTAG
CTCTCTCTCACCAGCCCATCATTAATGTATGTGCTGCCTTCTGAAGCTTGCAGCTGGCTAC
CATCMGGTAGAATAAAAAATCATCTTTTATAAAAAATGTGACCCTCCTTTTTTATTTGCATTT
CCCAAAGCCAAGCACCGTGGGANGGTAG

FIG. 1J

13709.2

TATGAAGAAGGGAAAAGAAGATAATTTGTGAAAGAAATGGGTCCAGTTACTAGTCTTTGA
AAAGGGTCAGTCTGTAGCTCTTCTTAATGAGAATAGGCAGCTTTCAGTTGCTCAGGGTCAG
ATTTCCTTAGTGGTGTATCTAATCACAGGAAACATCTGTGGTCCCTCCAGTCTCTTTCTGG
GGGACTTGGGCCCCACTTCTCATTTCAATTAATTAGAGGAAATAGAACTCAAAGTACAATTT
ACTGTTGTTTAACAATGCCACAAAGACATGGTTGGGAGCTATTTCTTGATTTGTGTAATAAT
GCTGTTTTTGTGTCTCATAATGGTTCCAAAAATTTGGGTGCTGGCCAAAGAGAGATACTGT
TACAGAAGCCAGCAAGAAGACCTCTGTTCAATCACACCCCCGGGGATATCAGGAATTGAC
TCCAGTGTGTGCAAAATCCAGTTTGGCCTATCTTCT

13712.1&2

TGAGGGACTGATTGGTTTGTCTCTGCTATTEAATTCCTCCCAAGCCCACTTGTTCCTGCAGCG
TCCTCCTTCTCATTCCTTTAGTTGTACCCTCTCTTTCATCTGAGACCTTTCCTTCTTGATGT
CGCCTTTTCTTCTTCTTCTGCTTTTCTGATGTTCTGCTCAGCATGTTCTGGGTGCTTCTCATCT
GCATCATTCCTTTCAGATGCTGTAGCTTCTTCTCCTCTTTCTGCTCCTTTTCTTTTCTTTT
TTTTGGGGGGCTTGTCTCTGACTCCAGTTGAGGGGGCCCCAGGGTCTGGCCTTTGAGACG
AGCCAGGAAGGGCTGTCTCTGGGCTCTAGCGGAGCAAGCTTGGCCTTCAATTGTGATCCCA
AGACGGGCAGCCTTGTGTGCTGTTCGGCCCTCACAGGCTTGGAGCAGCATCTCATCAGTCA
GAATCTTTGGGGACTTGGACCCCTGCTTGTGCTCATCACTGCAGCTCTCCAAGTCTTTGTTT
GGCTTCTCTCCACCTGAAGTC.AATGTAGCCATCTTCACAACTTCTGATACAGCAAGTTGG
GCTTGGGATGATTATAACGGGTGGTCTCTTAGAAAGGGCTCCTTATCTGTACTCCATCCTG
CCCAGTTTCCACTACCAAGTTGGCCGAGCTCTTGTGAAGAGCTCATTCCACCAGTGGTTT
GTGAACCTCCTTGGCAGGGTCATGTCTACCCCATGAGTGTCTTGCTTCAGYGT.CACCCTGA
GAGCCTGAGTGATACCAATCTCTCTTGG

13714.1&2

GACAACATGAAATAAAATCCTAGAGGACAA.AATTA.AACTCAATAGAGTGTAGTCTAGTTAA
AAACTCGAAAAATGAGCAAGTCTGGTCCGAGTGGAGGAAGGGCTATACTATAAAATCCAAG
TGGCCCTCCTGATCTTAACAAGCCATGCTCATATACACATCTCTGAACTGGACATACCAC
CTTTACGCAGGAAACAGGGCTTGGAACTTCTAAGGGAAATTAACATGCACCACCCACATC
TAACCTACCTGCCGGGTAGGTACCATCCCTGCTTGGCTGAAATCAGTGCTC

13716.1&2

TTGGAATTA.AATAAAACCTGGAACAGGGAAGGTGAAAGTTGGAGTGAGATGTCTTCCATAT
CTATACCTTTGTCCACAGTTGAATCCGA.ACTGTTTGGGTTTAGGGCATCTTAGAGTTGATT
GATCGAAAAACAGACAGGAACCTGGTGGGAGGTCAAGTGGGGAAAGTTGGTGAATGTGGA
ATAACTTACCTTTGTGCTCCACTTAAACCAGATGTGTTGCAGCTTTCCTGACATGCAAGGA
TCTACTTTAATTCCACACTCTCATTAATAAATGAATAAAAGGGAATGTTTTGGCACCTGA
TATAATCTGCCAGGCTATGTGACAGTAGGAAGGAATGGTTTCCCTTAACAAGCCCAATGC
ACTGGTCTGACTTTATAAATTAATTAATAAATGAACATAATC

FIG. 1K

000120.081000

AAACTGGACCTTACAGGGACATGAATTTACTGCARGGTCTGCAAGCTCAGCCCTCT
ACCTCAGGGCCCCACGCCATGACTACCTCCCCAGGAGCGGGAGGGTGAAGGGGGCCTG
TCTCTGCAAGTGGAGCCAGATGGAGGAATGAGCTCTGAAGACACAGCACCCAGCCTTCT
CGCACCAGCCAAGCCTTAAGTGCCTGACCTGAACCAGAAGCCAGCTGAACTGCCCC
TCCAAGGGACAGGAAGGCTGGGGAGGGAGTTACAACCCAAGCCATTCCACCCCTCCC
CTGCTGGGGAGAATGACACATCAAGCTGCTAACAAATTGGGGGAAGGGGAAGGAAGAAA
CTCTGAAAACAAAATCTTGT

CATGCGTTTACCACTGTTGGCCAGGCTGGTCTCGAACTCCTGGCCTCAAGCAATCCACCC
GCCTCAGCCTCCAAAAGTGCTGGGATTACAGATGTGAGCCATGGCACCATGCCAAAAGGC
TATATTCTGGCTCTGTGTTCCGAGACTGCTTTAATCCCAACTTCTCTACATTTAGATTA
AAAAATATTTTATTCATGTTCAATCTGGAACATAATTACTGCATCTTAAGTTTCCACTGAT
GTATATAGAAGGCTAAAGGCCAACATTTTATCAAATCTAGTAGAGTAACCAAACATAAAA
TCATTAATTACTTTCAACTTAATAACTAATTGACATTCCTCAAAAGAGCTGTTTTCAATCCT
GATAGGTTCTTTATTTTTTCAAATATAATTGCCATGGGATGCTAATTTGCAATAAGGCGC
ATAATGAGAATACCCCAAACCTGGA

GTTCGACCCCCAGGGAAGTCCAAAGACACTTCTTGGCCGAGCTGTGGCGGGAGAAGCTGAT
GTTCTTTTTTATATGCTTCTGCATCCGAATTTGATGAGATGTTTGTGGGTGTGGGAGCCAG
CCGTATCAGAAATCTTTTACCGAAGCAAAAGCCGAATGCTCCTTGTGTTATATTTATTGAT
GAATTAGATTCTGTTGGTCCGAAGCAATTTGAATCTCCAATGCATCCATATTC AAGGCAGA
CCATAAATCAACTTCTTGCTGAAATGGATGGTTTTAAACCCAATGAAGGAGTTATCATAAT
AGGAGCCACAAACTTCCCAAGGCCATTAGATAATGCCTTAATACCGTCTGGTGGTTTTGA
CATGCAAGTTACAGTTCCAAGCCAGATGTAAGGTCGAACAGAAATTTGAAATGGTA
TCTCAATAAAATAAAGTTTGATCAATCCCGTTGATCCAGAAATTATAGCCTCGAGGTACTG
GTGGCTTTTCCGAAGCAGAGTTGGGACAATCTT

GCCTACAACATCCAGAAAGAGTCTACCCCTGCACCTGGTCTCGTCTCAGAGGTGGGATGC
AGATCTTCTGTGAAGACCTGACTGGTAAGACCATCACTCTCGAAGTGGAGCCGAGTGACA
CCAFAGAGAACGTCAAAGCAAAGATCCARGACAAGGAAGGCRTYCCTCCTGACCAGCAGA
GGTTGATCTTTCCGGAAAGCAGCTGCCAAGATGGDCCACCCCTGTCTGACTACAACATCC
AGAAAGAGTCYACCCCTGCACCTGGTCTCGCTCTCAGAGGTGGGATGCARATCTTCTGTGA
AGACCCCTGACTGGTAAGACCATCACCCCTCGAGGTGGAGCCCAAGTGACACCATCGAGAATG
TCAAGGCCAAAGATCCAAGATAAGGAAGGCATCCCTGCTGATCAGCAGAGGTTGATCTTTG
CTGGGAAACAGCTGGAAGATGGACCCACCCCTGTCTGACTACAACATCCAGAAAGAGTCCA
CTCTGCACCTTGGTCTCTGCGCTTGAGGGGGGGTGTCTAAGTTTCCCTTTTAAGGTTTCMAC
AAATTTCAATTGCACCTTCTCTTCAATAAAGTTGTTGCAATCCC

12

066671-081000

13730.1

GAAGTGGGGCCCTGAGCCCAAGTCAATGCTTGTGTCCGCATCTGCCGTGTCACCTCTGTGCC
TGCCCTCACCCCTCCCTCCTGGTCTTCTGAGCCAGCACCATCTCCAAATAGCCTATTCTT
CCTGCAAATCACACACATGCGGGCCACACATACCTGCTGCCCTGGAGATGGGGAAGTA
GGAGAGATGAATAGAGGGCCATACATTGTACAGAAAGGAGGGGCGAGGTGCAGATAAAAGC
AGEAGACCCAGCGGCAGCTGAGGTGCAATGGAGCACGGTTGGGGCCGGCATTGGGCTGAGC
ACCTGATGGGCCTCATCTCGTGAATCCTCGAGGCAGCGCCACAGCAGAGGAGTTAAGTGG
CACCTGGGGCCGAGCAGAGCAGGAGACTGAGGGTCAGAGTGGAGGCTAAGCTGCCCTGGA
ACTCCTCAATCTTGCCTGCCCCCTAGTATGAAGCCCCCTTCTGCCCTACAATTCCTGA

13732.1

ATGGATCTFACTTTGCCACCCAGGTTGGAGTGCAGTGTGCAATCTTGGCTCACTGCAGCC
TTAACCTCCCAGGCTCAAGCTATCCTCCTGCCAAAGCCTTCCACATAGCTGGGACTACAGG
TACACNGCCACCACACCCAGCTAAAATTTTGTATTTTGTAGAGACGGGATCTCGCCAC
GTTGCCAGGCTGGTCCCATCCTGACCTCAAGCAGATCTGCCACCTCAGCCCCCAACGT
GCTAGGATTACAGGCGTGAGCCACCCACCCAGCCTTTGTTTTGCTTTTAATGGAATCACC
AGTTCCCTCCGTGTCTCAGCAGCAGCTGTGAGAAATGCTTTGCATCTGTGACCTTTATGA
AGGGGAACCTCCATGCTGAAATGAGGGTAGGATTACATGCTCCTGTTTCCCGGGGGTCAAG
AAAGCCTCAGACTCCAGCATGATAAGCAGGGTGAG

13732.2

ATAGGGGCTTTAAGGAGGGAATTCAGCTTCAATGAGGTGTAAGGCCAGGGCTCTTATCC
AGTAAGACTGGGGTCTTACATGAGAAAGAGACACCCGAGGTCTTCTCTCTGCCGTGTG
AGGATGCATCAAGAAGGCGGGCTCTGCAAGCGAAGGAGAGGCGCCACAGAAACCGAC
ACCTTCATCTTGCCTTGCAGCCTCTAGAAGTGAAGAAATAAATGTCTGTTGGTTAAGCCA
CCCAGTTTGTAGTATCTCTTATGGCTTCTAAGCAGACTAACAAACAAACACCCAAAATT
AACTGATGGCTTCCCTGTCTTCTGTAAAAATTGCTATGAGAGAACTTTCACTCACTGTTTT
GCAGTTTCTCCCTCAGTCCCTGGTCTTCTTCTCAGATAATCCCAATTTCAATTTATAGTTC
ATGGCCCAGGCAGAGTCATTTCATCAGGCTATCTCCTGAGCTAAACCAGCACCTGCTCTGCT
CACTTCTTGAAGTGGCTGCTCATCATCAGCCTCTTGCAGAGATTTCATTTCTCCCGTGCCA
GGTACTTCACGCACCAAGCTCA

FIG. 1M

096780360303030303

137352

13-36.1

13737.142

FIG. 1N

13738.1

TTTGACTTTAGTAGGGGTCTGAACTATTTATTTTACTTTGCCMGTAATATTTARACCYTATA
TATCTTTTCATTATGCCATCTTATCTTCTAATGBCAAGGGAACAGWTGCTAAMCTGGCTTCT
GCATTWATCACATTAAAAATGGCTTTCTTGGAAAAATCTTCTGATATGAATAAAGGATCTT
TTAVAGCCATCATTTAAAGCMGGNTTCTCTCCAACAGAGTCTGCTASGGGGGGGKGAGCT
GTGAACTCTGGCTGAAGGCTTTCCCATACACACTGCAATGACMTGGTTTCTGACCAGBGTG
AGTETA

13738.2

AGAGAAGCCCCATAAATGCCAATCAGTGTGGGAAGGCCTTCAGTCAGAGCTCAAGCCTTTT
CCTCCATCATCGGGTTCATACTGGAGAGAAACCTATGTATGTAATGAATGCCGCAGAGCC
TTTGGTTTTAACTCTCATCTTACTGAACACGTAAGGATTACACAGGAGAAAAACCTATG
TTTGTAAATGAGTGGCGGCAAGCCTTTCTGTCGAGTTCCACTCTTGTTCAGCATCGAAGAGT
TCACACTGGGGAGAAAGCCCTACCACTGGCGTTGAATGTGGGAAAGCCTTCAGCCAGAGCTC
CCAGCTCACCTACATCAGCCGAGTTCACACTGGAGAGAAGCCCTATGACTGTGGTGAAGT
TGGGAAGGCCTTCAGCCGGAGGTCAACCTCATTACAGCATCAGAAAGTTCACAGCGGAGA
GACTCGTAAGTGCAGAAAAATGGTCCAGCCTTTGTTCATGGCTCCAGCCTCACAGCAGAT
GGACAGATTCCCACTGGAGAGAAGCAGGCGAGAACCTTTAACCATGGTGCAAAATCTCATT
CTGCGCTGGACAGTTC

13739.1&2

GAGACAGGCTCTCACTTTGTCAACCCAGCCTGGAATGCAGTGGTGGGATCTTACGTAGCTCA
CTGCAGCCCTGACCTCCTGGCACTCAAAACAATCTCCTGCCCTCAGCCTGCAAGTAGCTGGG
ACTGTGGGTGCATGGCACCATGCCCTGCCCTAACCTTTGTAGTTTTGTAAAGATGGGCTTTT
GCCATGTTCCACATCCTGGTCTTGAACCTCCTGAGCTCAAACGATCTGCCACCTCGGCCTC
CCAGAATGTTGGGATTACAGGGGTAAACCCACCCAGCCTGGCCCCATTAGGCTATCTTAGC
ATCCACTGTCTCACTGAGATTAATCATAGAGATGATAAGCACTGGAAGA.AAAAAAATTTT
ACTAGCCTTTGGATATTTTTCTTTTCCAGCTTTATACAGAGGATTGGATCTTTAGTTTTT
CTTTAACTGATAATAAAACAATTGAAGGAAATAAGTTACCTGAGATTACACAGAGATAAC
CGGCATCACTCCCTTGGTCAATGCCAGTCTTACCACATCAATTATTTTACAGAGGTGCAGGA
TAAAGGCCTTTAGTCTGCTTTGGCAGTTTCTTCCACTTTTTGTAAACCTGTGGCTGACA
AATGGAATTGACAGCGTATGCCATGACTATCCATTTGTACGGCATACGCTGTCAATTTTT
CCACCAATCCCTTGTCTCTCTTTGGAGAGATCTTCTTATCAGCTAGTCTTTGGCAAAAGTA
ATTGCAACTTCTTCTAGGTATTCTATTGTCGGTTCCACTGCTGGA.ACCCTGGGACCAGGA
CTAAAACCTCCAG

13741.1

ATCTCATATATATATTTCTTCTGACTTTATTTGCTTGCTTCTGNCACCCATTTAAAAATATC
ACAGAGACCAAAATAGAGCGGCTTTCTGGTGAACGCAATGGCAGTCACAGGACAAAAATAC
AAA.ACTAGCGGCTCTGTCTTCTCATACATACATAAATTTCAAGTATTTTTTTATGTACA
AAGAGCTACTCTATCTGAAAAAAATTTAAAAAATAAATGAGACAAATAGTTTATGCAATC
CTAGGAAGAAAGAATGGGAAGAAAGAAAGGGGGCAGTTGGGTACACATTCTGTCCCTGT
TCCCAGGGACCACTACCTTCTGCACTGAGTTCCGCCACAGCCTCACCCATCATGTACA
GGGCAAGTGGCAGGATAGGTGGGCAAGTGGAGACACGAACCAGCAACATACTTTGGC
CTGGAAGATAAGGAGAAAGTCTCAGAAACACACTGGTGGGAAGCAATCCACNCGCCGT
GCCCCANGAGCTTCCACCTGCTGCTGCTGCTGGGTGGCTTTGGGAACAGCTTTGGGCAG
GCCCTTTTGGGTGGGNC.AACTGGCCCTTTGGGCCCCGTGTGGAAG

FIG. 10

09636801.081000

096901000000

14351.1

14351.2

14354.2

14354.1

CTTTCGATTTCCTTCAATTTCGTCACGTTTGAATTTATGAAGTTGTTCAAGGGCTAACTGCTG
TGTATTATAGCTTTCTCTGAGTTCCCTCAGCTGATTGTTAAATGAATCCATTTCCTGAGAGCT
TAGATGCAGTTTCTTTTCAAGAGCAGCTAAATGTTCTTTAAGTCTTTGGCATAATTCTTCC
TTTTCTGATGACTTTCTATGAAGTAACTGATCCCTGAATCAGGTGTGTTACTGAGCTGCAT
GTTTAAATTCTTTTGGTTAAATAGCTGCTTCTCAGGGACCAGATAGATAAGCTTATTTTGAT
ATTCTTAAGCTCTTTGGTGAAGTTGTTGGATTTCATAATTTCCAGGTCACACTGGTTATCC
CAAACCTTCT

FIG. 1P

16431.1.2

GTGGAGGTGAAACGGAGGC.AAGAAAAGGGGGCTACCTCAGGAGCGAGGGACAAAGGGGGC
GTGAGGCACCTAGGCCCGCGGCACCCCGCGACAGGAAGCCGTCTGAACCGGGCTACCGG
GTAGGGGAAGGGCCCGCGTAGTCTCGCAGGGCCCCAGAGCTGGAGTCGGGCTCCACAGCC
CCGGGGCGTCGGCTTCTCACTTCTGGACCTCCCCGGCGCCCGGGCTGAGGACTGGCTCG
GCGGAGGGAGAAGAGGAAAC.AGACTTGAGCAGCTCCCGTTGTCTCGCAACTCCACTGCC
GAGGAACCTCATTTCTTCCCTCGCTCCTTACCCCCACCTCATGTAGAAAGGTGCTGAA
GCGTCCGGAGGGGAAGAAGAACCTGGGCTACCGTCTGGCCTTCCCMCCCCCTTCCCGGGG
CGCTTGGTGGGCGTGGAGTTGGGGTTGGGGGGTGGGTGGGGGTTCTTTTGGAGTGCT
GGGGAACTTTTTCCCTTCTTCAAGTCAGGGGAAAGGGAATGCCAATTCAGAGAGACAT
GGGGGCAAGAAGGACGGGAGTGGAGGAGCTTCTGGAACTTTGCAGCCGTCAACGGGAGG
CGGCAGCTCTAACAGCAGAGACCGTCACCGCTTGGTATCGAAGCACAAGCGGCATAAGTC
CAAACACTCCAAAGACATGGGGTTGGTGACCCCCGAAGCAGCATCCCTGGGCACAGTTAT
CAAACCTTTGGTGGAGTATGATGATATCAGCTCTGATTCCGACACCTTCTCGATGACATG
GCCTTCAAACCTAGACCGAAGGGAGAACGACGAACGTCTGGATCAGATCGGAGCGACCGC
CTGCACAAACATCGTC.ACC.ACC.AGCAC.AGGCGTTCCCGGACTTACTAAAAGCTAAACAG
ACCG

16432-1

GACATGTTTCCCTGCACGGGACCAGAGAC.AATGGGATTAGCCAGTGCTCACTGTTCTTTAT
GCTTCCAGAGAGGATGGGGACAGCTCTCAGGTGAGAATCCAGGCTGAGAAGCCCATGCTG
GTTGGGGGGCCCCCGGAAGC.ACGGTCGGATCCTCCCTGGCATCAGCGTAGACCCGCTGCTC
AGGCTTGGGGTACCAAACCTCATGCTCTGACTGTTTGGCCCCATGCGGTGAGAGGAAAAC
CTAGAAAAAGATTGCTCGTCTAAGGAATCAGCTGCCCGCTCATCTCCGCA.TCCAATGCT
GGTGACAACATATTCCCTCTCCAGGACACAGACTCGGTGACTCCACACTGGGCTGAGTGG
CCTCTGGAGGCTCGTGGCCTAAGCCAGGGCTCCGTAAGGCTGATCGGCTGAACCTGGGTGG
GGTGAGGGTTTCTGACCCTTCCGTTCCCATCCCATAAACCGCTGTCAATGAGCTCACACTGT
GGTCA

16432-2

GATGGCATGGTGGTCTCTAA.TGTCCCTGCTGGCATGGAGCACTTCTCCTGTGAGCCCAGG
GGACCCGCTGTCCCTGGAGCTTGGGGCAAGGAGGGAAGAGTGATACCAGGAAGGTGGG
GCTGC.AGCC.AGGGGCC.AGAGTCAGTTCACCGAGTGGTCTCCTCGGCCCTCAAAGCTCCTCCG
GGGACTGCTCAGGAGTGATGGTGGCCTGGAGTTTGGCCCAACTTCCCTGGCCACCCCTGGAA
GGTGCCTGGCTGCTCCAGGCCCTTACGGCTGGGCTGATGGGTTTCTCCAGGACACAAGTATC
ATTAAAGCCACCCCTCTCCTCAGCTTGTACGGCCGCACATGTGGGACAGGCTGTGCTCAAA
CCCCCTCCCTGCCCCTGCCCTCCATCAGGACGAGCCAGTGGAACTTCCGGA.AAGCTCCAG
CATCTCAGCAGCCCTCAA.AAGTGGTCTGGGGCAAGCTCTGGTTCTCCTGACTGGAGGTCA
TCTGGGCTTGGCCTGCTCTCTCTCCG

17184.3

TAAAAAAGTGTAAC.AAAGGTTTATTTAGACTTTCTTCATCCCCCAGATCCAGGATGTCTA
TGTA.AACGTTATCTTACAAAG.AAAGCACAATATTTGGTATAAACTAAGTCAGTGACTTGC
TTAACTGAAATACCGTCCATCCAA.AAGTGGGTTAAGGTA.AAACTACCTGACGATATTGGC
GGGATCCTGCAAGTTTGGACTGCTTCCCGGCTTGTCCAGGGTTCCGGGTCTGTTCTTGGC
ACTCATGGGACAGGCATCCTGCTGCTGTGGGGCCCCGCTGGAGCCCTTACGTGAAGCT
GAAGGTATCGACCTAGCGGGCTTACGGCACTGGGACCTTCATCCGGAACATAACAAGG
TCGGGGAGAGCCCTCTTGGGCTATGTGGC

FIG. 1Q

17184.4

CAAGCGTTCCTTTATGGATGTAAATTCAAACAGTCATGCTGAGCCATCCCGGGCTGACAGT
CACGTTWAAGACACTAGGTTCGGGCGCCACAGTGCCACCCAAGGAGAAGAAGAAATTTGGA
ATTTTTCATGAAGATGTACGGAAATCTGATGTTGAATATGAAAATGGCCCCCAAATGGAA
TTCCAAAAGGTTACCACAGGGGCTGTAAAGACCTAGTGACCCTCCTAAGTGGGAAAGAGGA
ATGGAGAATAGTATTTCTGATGCATCAAGAACATCAGAATATAAAACTGAGATCATAATG
AAGGAAAATTCCATATCCAATATGAGTTTACTCAGAGACAGTAGAACTATTCCCAGG

17185.1

TAGGAATAACAAATGTTTATTCAGAAATGGATAAGTAATACATAATCACCTTCATCTCTT
AATGCCCCCTTCCTCTCCTTCTGCACAGGAGACACAGATGGGTAAACATAGAGGCATGGGAA
GTGGAGGAGGACACAGGACTAGCCCAACCTTCTCTTCCCGGTCTCCCAAGATGACTGCT
TATAGAGTGGAGGAGGCAAAACAGGTCCCCTCAATGTACCAGATGGTCACCTATAGCACCA
GCTCCAGATGGCCACGTGGTTGCCAGCTGGACTCAATGAACTCTGTGACAACCAGAAGAT
ACCTGCTTTGGGATGAGAGGGAGGATAAAGCCATGCAGGGAGGATATTTACCATCCCTAC
CCTAAGCACAGTGCAAGCAGTGAGCCCCCGGCTCCAGTACCTGAAAAACCAAGGCCTAC
TGNCTTTTGGATGCTCTCTTGGGCCACG

17183.2

AAGCCTCCTGCCCTGGAAAATCTGGAGCCCCCTTGGAGCTGAGCTGGACGGGGCAGGGAGGG
GCTGAGAGGCAAGACCGTCTCCTCTCTGCTGACCTGCTTCCCCACGACCCACTGCTGGGG
ACAGCAGAAACCCACGACAGAAAAATGGGAGCCGAGAGCTCCTAGCCCTGGAGCTGAGG
CTGCTCTGGGCTGACCCGCTGCTCTGCTGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG
ATTTGAGGCCAGGGTGGAGGAAAGGGAGGCGCAACAGAGGAGGAGGAGGAGGAGGAGGAGG
AACACAGCCCTTGTCCCACGACGCTAAGTCCAGGGAGCGGTGATGAAGTCAGGCAGCCAG
TCGGGGAGGAGGAGGTAAGTCAGGAGCAATGTACCTTGTAGCCTATGCGCTCAATGGCC
CGGAGGGGACCAACCCCCCGCACACCTCAGGCAACAGCAGTGCTCTGACGGCACCAG
AGAGCGATGATGGACTTGAGCCCCGTGCTC

17190.1

GTTTGGCAGAAGACATGTTTAAATAACAATTCATATTTAAAAATACAGCAACAATTCCTCT
ATCTGTCCACCATCTTGCTTGGCTTGGCTTGGCTGAGGCAGACAAAGGAAAGGTAATGA
GGTTAGGGCCCCCAGGCGGCTAAGTGCTATTGGCTGCTCTGCTCAAGAGAGGCCATA
GCCAGCTGGGCACGGCCCCCTAGCCCCCTCCAGCTTCTGAGGCGGCAGCGGTGGTAGAGT
TCTTACTGAGCCGTGGGCTCCAGTCTCAGGAGGAGAACTTCTGACCAAGCCCTGGCTCTA
CGCCCEGAAGAGGTGGAGCCCTGAGAACGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG
CCAGGGCTTCT
GTAGTCAGCGTTGTAGAAGCAGCCCTCCGAGAGGCTGCGGTCAAAATCTCCCCGCTATA
GGAGCCCCCGGGAGGGGTGAGCAC

FIG. 1R

17190.2

CAAGTTGAACGTCAGGCTTGGCAGAGGTGGAGTGTAGATGAAAACAAAGGTGTGATTATG
AAGAGGATGTGAGTCCTTTGGGTGTAGGAGAGAAAGGCTGTTGAGCTTCTATTTCAAGAT
ACTTTTACCTGTGCAAAAAGCACATTTTCCACCTCCTTCTCATGGCATTGTGTAAAGGTGAG
TATGATTCTATTCCATCTGCATTTTAGAGGTGAAGAATAACGTACAAGGGATTCAAGTAT
TAGCAAGGGACCCCTCACTAAGTGTTGATGGAGTTAGGACAGAGCTCAGCTGTTTGAATCT
CAGAGCCCAGGCAGCTGGAGCTGGGTAGGATCCTGGAGCTGGCACTAATGTGAGGTGCAT
TCCCTCCAACCCAGGCTCAGATCCGGAACCTGACCGTGCTGACCCCCGAAGGGGAGGCAG
GGCTGAGCTGGCCCGTTGGGCTCCCTGCTCCTTTACACCACACTCTCGCTTTGAGGTGCTG
GGCTGGGACTACTTCACAGAGCAGC

17191.2&89.2

TGGCCTGGGCAGGATTGGGAGAGAGGTAGCTACCCGGATGCAGTCCTTTGGGATGAAGAC
TATAGGGTATGACCCCATCATTTCCCCAGAGGTCTCGGCCTCCTTTGGTGTTCAGCAGCTG
CCCCTGGAGGAGATCTGGCCTCTCTGTGATTTCACTGTGCACACTCCTCTCCTGCCCTC
CAGCACAGGCTTGCTGAATGACAACACCTTTGCCCAAGTGAAGAAGGGGGTGGTGTGGT
GAACTGTGCCCGTGGAGGGATCGTGGACGAAGGCGCCCTGCTCCGGGGCCCTGCAGTCTGG
CCAGTGTGCCGGGGCTGCACTGGACGTGTTACGGAAGAGCCGCCACGGGACCGGGCCTT
GGTGGACCATGAGAAATGTCATCAGCTGTCCCCACCTGGGTGCCAGCACCAAGGAGGCTCA
GAGCCGCTGTGGGGAGGAAATTGCTGTTCAAGTTCGTGGACATGGTGAAGGGGAAATCTCT
CACGGGGGTTGTGAATGCCCCAGGCCCTT

FIG. 1S

09636301.081000

AGCCAGATGGCTAGAGCTGCAAGAAGAAAGTCAGGATCATGCTCAGTTTCCACAG
CGATGAATGGGACCAAATATGTGGGCTATTACATCTGAAACGTACTAAGCATGATA
AACAGTTTGATAACCTCAAACCTTCAGGAGGTTACATAACAGGTGATCAAGCCCGTACTTT
TTTCTACAGTCAGGTCTGCCGCCCCCGGTTTTAGCTGAAATATGGGCCTTATCAGATCTG
AACAAAGGATGGGAAGATGGACCACCAAGAGTTCTCTATAGCTATGAAACTCATCAAGTTA
AAGTTGCAGGGCCAAACAGCTGCCTGTAGTCTCCTCCTATCATGAAACAACCCCTATGT
TCTCTCCAATAATCTCTGCTCGTTTTGGGATGGGAAGCATGCCCAATCTGTCCATTATCAG
CCATTGCCTCCAGTTGCACCTATAGCAACACCCTTGTCTTCTGCTACTTCAGGGACCAGTAT
TCCTCCCCTAATGATGCTGCTCCTCCTAGTGCCTTCTGTTAGTACATCCTCATTACCAAATG
GAACTGCCAGTCTCATTACGCTTTATCCATTCTTATTCTTCTTCAACATTGCCTCATGCA
TCATCTTACAGCCTGATGATGGGAGGATTTGGTGGTGTAGTATCCAGAAGGCCCATGCTC
TGATTGATTTAGGATCTAGTAGCTCAACTTCTCAACTGCTTCCCTCTCAGGGAACTCACCT
AAGACAGGGACCTCAGAGTGGGCAGTTCTCAGCCTTCAAGATTAAAGTATCGGCAAAAA
TTTAATAGTCTAGACAAAGGCATGAGCGGATACCTCTCAGGTTTTCAAGCTAGAAATGCCC
TTCTTCAGTCAAATCTCTCTCAAACCTCAGCTAGCTACTATTGGACTCTGGCTGACATCGAT
GGTGACGGACAGTTGAAAGCTGAAGAAATTTATTCTGGCGATGCACCTCACTGACATGGCC
AAAGCTGGACAGCCACTACCCTGACGTTGCCTCCCGAGCTTGTCCCTCCATCTTTTCAGAG
GGGGAAGCAAGTTGATTCTGTTAATGGAAETCTGCCTTCATATCAGAAAACACAAGAAG
AAGAGCCTCAGAAGAAACTGCCAGTTACTTTTGAGGACAAACGGAAAGCCAACTATGAAC
GAGGAAACATGGAGCTGGAGAAGCGACGCCAAGTGTGATGGAGCAGCAGCAGAGGGAG
GCTGAACGCAAGGCCCAGAAAGACAAGGAAGAGTGGGAGCGGAAACAGAGAGAAGTGC
AAGAGCAAGAATGGAAGAAGCAGCTGGAGTTGGAGAAACGCTTGGAGAAACAGAGAGAG
CTGGAGAGACAGCGGGAGGAAGACAGGAGAAAGGAGATAGAAAGACGAGAGGCAGCAAA
AACAGGAGCTTGAGAGACAACGCGCTTAGAATGGGAAAGACTCCGTCGGCAGGAGCTGC
TCAGTCAGAAGACCAGCGAACAAGAACACATTGTCAGGCTGAGCTCCAGAAAGAAAAGT
CTCCACCTGGAAGTGGAAAGCACTGAATGGAAAACATCAGCAGATCTCAGGCAGACTACAA
GATGTCCAAATCAGAAAGCAAAACAAAAGACTGAGCTAGAAGTTTTGGATAAACAGTGT
GACCTGGAAATATGGAATCAAAACAACTTCAACAAGAGCTTAAGGAATATCAAAATAAG
CTTATCTATCTGGTCCCTGAGAAGCAGCTATTAAACGAAAGAAATTAACAAATGCAGCTCA
GTAACACACCTGATTCAGGGAATCACTTACTTCATAAAAAGTCATCAGAAAAGGAAGAA
TATGCCAAAAGACTTAAAGAACAAATAGATGCTCTGAAAAAGAAACTGCATCTAAGCTCT
CAGAAATGGATTCAATTAACAATCAGCTGAAGGAAGTCAAGAAAAGCTATAATACACAGC
AGTTAGCCCTTGAACAACCTTCATAAAATCAAAACGTCACAAATGAAAGGAAATCGAAAGAA
AAAGATTAGAGCAAAAAA

FIG. 2A

ATGGCAGTGAC...ACCATCATGGGAACCACCTTCCCTTTT...AGGATTCTCTGTAGTG
GAAGAGAGCACCCAGTGTTGGGCTGAAAACATCTGAAAGTAGGGAGAAGAACCTAAAAAT
AATCAGTATCTCAGAGGGCTCTAAGGTGCCAAGAAGTCTCACTGGACATTTAAGTGCCAA
CAAAGGCATACTTTCCGAATCGCCAAGTCAAACTTTCTAACTTCTGTCTCTCAGAGAC
AAGTGAGACTCAAGAGTCTACTGCTTTAGTGGCAACTACAGAAAACTGGTGTTACCCAGA
AAAACAGGAGCAATTAGAAATGGTTCCAATATTTCAAAGCTCCGCAAACAGGATGTGCTT
TCCTTTGCCCATTTAGGGTTTCTTCTTTCTTTCTTTTATTAACCACTA

FIG. 2B

09636801.081000

ATATCTAGAACGGAGTGAGCAAAACAAGAGCAAGAAACAAGAAGCCAAAAGCAG
AAGGCTCCAATATGAACAAGATAAATCTATCTTCAAAGACATATTAGAAGTTGGGAAAAT
AATTCATGTGAACTAGACAAGTGTGTTAAGAGTGATAAGTAAAATGCACGTGGAGACAAG
TGCATCCCCAGATCTCAGGGACCTCCCCCTGCCTGTCACCTGGGGAGTGAGAGGACAGGAT
AGTGCATGTTCTTTGTCTCTGAATTTTATGTTATATGTGCTGTAATGTTGCTCTGAGGAAGC
CCCTGGAAAGTCTATCCCAACATATCCACATCTTATATCCACAAATTAAGCTGTAGTATG
TACCCTAAGACGCTGCTAATTGACTGCCACTTCGCAACTCAGGGGCGGCTGCATTTTAGTA
ATGGGTCAAATGATTCACTTTTATGATGCTTCCAAAGGTGCCTTGGCTTCTCTTCCCAACT
GACAAATGCCAAAGTTGAGAAAAATGATCATAATTTTAGCATAAACAGAGCAGTCGGCGA
CACCGATTTTATAAATAAACTGAGCACCTTCTTTTAAACAAACAAATGCGGGTTTATTCT
CAGATGATGTTTCATCCGTGAATGGTCCAGGGAAGGACCTTTCACCTTGACTATATGGCATT
ATGTCATCACAAGCTCTGAGGCTTCTCTTTCATCTGCGTGGACAGCTAAGACCTCAGT
TTCAATAGCATCTAGAGCAGTGGGACTCAGCTGGGGTGATTTGCCCCCATCTCCGGGG
GAATGTCTGAAGACAATTTTGTACCTCAATGAGGGAGTGGAGGAGGATACAGTGCTACT
ACCAACTAGTGGATAAAGGCCAGGGATGCTGCTCAACCTCCTACCATGTACAGGACGTCTC
CCCATTACAACCTACCCAATCCGAAGTGTCAACTGTGTGAGGACTAAGAAACCTGGTTTTG
AGTAGAAAAGGGCCTGGAAAGAGGGGAGCĒAACAAATCTGTCTGCTTCTCACATTAGTC
ATTGGCAAATAAGCATTCTGTCTCTTGGCTGCTGCCTCAGCACAGAGAGCCAGAACTCTA
TCGGGCACCAGGATAACATCTCTCAGTGAACAGAGTTGACAAGGCCTATGGGAAATGCCT
GATGGGATTATCTTCAGCTTGTGAGCTTCTAAGTTTCTTCCCTTCACTTACCCTGCAAG
CCAAGTTCTGTAAAGAGAAATGCCTGAGTTCTAGCTCAGGTTTTCTTACTCTGAATTTAGATC
TCCAGACCCTTCTGCCCACAATTCAAATTAAGGCAACAAACATATACCTTCCATGAAGCA
CACACAGACTTTTGAAAGCAACGACAACTGACTGCTTGAATTGAGGCCTTGAGGAATGAAG
CTTGAAGGAAAAGAACTTTGTTCCAGCCCCCTTCCCACTCTTCAATGTGTTAACCAC
TGCCTTCTGGACCTTGGAGCCACGGTACTGTATTACATGTTGTTATAGAAAAGTATTTT
AGAGTTCTGATCGTTCAAGAGAAATGATTAATAATACATTTCCTA

FIG. 2C

Element Display										I" X	
Ull Exp	Probe 1	I xp	Probe 2	Ut H/V Image	Probe/Vell	Probe 1	S/I	A%	Probe 2	S/I	A%
1.7	304A Ovary T (neds)		272A Dendritic cells	42240000 (420)	421G0106 (C:11)	2303	13.7	50	1430	2.0	50
1.1	305A Ovary Tumor		S7 Ovary N	42220026 (420)	421G0106 (C:11)	355	2.7	54	382	1.0	54
1.0	261A Ovary Tumor		S10 Sclerotic muscle N	42230021 (420)	421G0106 (C:11)	1290	6.9	51	707	1.9	51
1.3	264A Ovary Tumor		S2 Punctate H	42200029 (420)	421G0106 (C:11)	9500	44.0	62	1100	2.3	62
1.2	306A		S40	42240005 (420)	421G0106 (C:11)	510	3.8	50	819	2.0	50
1.7	265A Ovary Tumor		C15 Heart N	42200024 (420)	421G0106 (C:11)	2305	14.0	53	409	2.2	53
1.4	S25 Ovary Tumor		C14 Bone Marrow N	42210019 (420)	421G0106 (C:11)	531	3.5	53	743	2.0	53
	303A		H	42200009 (420)	421G0106 (C:11)	1042	10.0	39	1071	2.0	39
1.9	S22 Ovary Tumor		C19 Kidney N	42200027 (420)	421G0106 (C:11)	453	3.3	68	857	3.2	68
1.2	9005 T-P		9405 S-P	42220002 (420)	421G0106 (C:11)	1082	12.2	57	504	2.3	57
1.5	202A Ovary Tumor		330A Lung Hidesline H	42200022 (420)	421G0106 (C:11)	1406	7.5	55	965	2.2	55
1.1	S115		C110	42200004 (420)	421G0106 (C:11)	509	3.4	51	573	2.0	51
1.1	208A Ovary Tumor		C112 Lung N	42200025 (420)	421G0106 (C:11)	700	4.5	54	651	2.1	54
2.1	201A Ovary Tumor		S6 Stomach N	42200021 (420)	421G0106 (C:11)	625	4.6	46	1335	3.0	46
1.0	S23 Ovary Tumor		S56 Spleen Cord N	42200020 (420)	421G0106 (C:11)	3896	22.2	50	502	2.2	50
1.0	205A		270A	42200006 (420)	421G0106 (C:11)	2251	14.7	46	1256	2.0	46
1.0	9134		P	42200001 (420)	421G0106 (C:11)	552	3.4	72	1028	2.3	72
1.6	305A Ovary T		S01 Fetal tissue	42200007 (420)	421G0106 (C:11)	8126	35.5	50	1449	2.0	50
1.5	263A Ovary Tumor		S73 Breast N	42210023 (420)	421G0106 (C:11)	439	3.2	61	1531	3.4	61
1.3	302A		C119	42200010 (420)	421G0106 (C:11)	387	3.2	50	1270	2.1	50
1.0	206A		S27	42250003 (420)	421G0106 (C:11)	4242	22.2	58	883	2.0	58

FIG. 3

TCGAGCGGCCGCGGCAGGTCCTTCAGACTTGGACTGTGTCCTGCTGCCAGGCTTCCAG
GGCTCCAACTTGCAGACGGCCTGTTGTGGGACAGTCTCTGTAATCGCGAAAGCAACCATG
GAAGACCTGGGGGAAAACACCATGGTTTTATCCACCCTGAGATCTTTGAACAACCTTCATCT
CTCAGCGTGCGGAGGGAGGCTCTGGACTGGATATTTCTACCTCGGECGCGACCACGCT

FIG. 4

TAGCGYGGTCGCGCCGAGGYCTGCTTYTCTGTCCAGCCCAGGGCCTGTGGGGTCAGGGC
GGTGGGTGCAGATGGCATCCACTCCGGTGGCTTCCCCATCTTCTCTGGCCTGAGCAAGGT
CAGCCTGCAGCCAGAGTACAGAGGGCCAACACTGGTGTCTTGAACAAGGGCCTTAGCAG
GCCCTGAAGGRCCCTCTCTGTAGTGTGAACTTCTGGAGCCAGGCCACATGTTCTCCTCAT
ACCGCAGGYTAGYGATGGTGAAGTTGAGGGTGAAATAGTATTMANGRAGATGGCTGGCA
RACCTGCCCCGGCGGCCGCTCSAAATCC

FIG. 5

AGCGTGGTCGCCGAGGTGTCCTTCAGGGTCTGCTTATGCCCTTGTTCAAGAACACCAG
TGTCAGCTCTCTGTACTCTGGTTGCAGACTGACCTTGCTCAGGCCTGAGAAGGATGGGGCA
GCCACCAGAGTGGATGCTGTCTGCACCCATCGTCCTGACCCCAAAGCCCTGGACTGGACA
GAGAGCGGCTGTACTGGAAGCTGAGCCAGCTGACCCACGGCATCACTGAGCTGGGCCCCT
ACACCCTGGACAGGGACAGTCTCTATGTCAATGGTTTCACCCATCGGAGCTCTGTACCCAC
CACCAGCACCGGGGTGGTCAGCGAGGAGCCATTCAACCTGCCCGGGCGGCCGCTCGA

FIG. 6

A

TTGGGGNTTTMC GGGCCGCCCGGGCAGGTACCGGGGTGGT EGAGGAGCCATTAC
ACTGAACTTCAC CAACAACCTGCCGTATGAGGAGAACATG GCACCCCTGGCTCCAG
GAAGTTCAACACCACGGAGAGGGTCCTTCAGGGCCTGCTCAGGTCCCTGTTCAAGAGCAC
CAGTGTGGCCCTCTGTA CTCTGGCTGCAGACTGACTTTGCTCAGACTTGAGAAACATGGG
GCAGCCACTGGAGTGGACGCCATCTGCACCTCCGCCTTGATCCCACTGGTCCTGGACTGG
ACAGAGAGCGGCTATACTGGGAGCTGAGCCAGTCCTCTGGCGGNGACNCCNTT

B

AGCGTGGTCGCGGCCGAGGTCCAGTCCGAGCATGCTCTTTCTCCTGCCCACTGGCACAGTG
AGGAAGATCTCTGCTGTCAGTGAGAAGGCTGTCATCCACTGAGATGGCAGTCAAAAAGTGC
ATTAATACACCTAACGTATCGAACATCATAGCTTGGCCCAGGTTATCTCATATGTGCTCA
GAACACTTACAATAGCCTGCAGACCTGCCCCGGGCGGCCGCTCGA

000T80" T089E960

FIG. 7A and 7B

TGTGGTGTGAACTGGAGNCAGGGTGACCCATGTCCTCCACTGCAGGTGGTG
ATGGTGAAGTTOGTGAATGGTACCAGGAGAGGGCCAGCATAAATTGTSGRGCKG
SMGMSSGAGGMWGGWGTYYCWGAGGTTCYRARRTCCACTGTGGAGGTCCCAGGAGTGCT
GGTGGTGGGCACAGAGSTCYGATGGGTGAAACCATTGACATAGAGACTGTTCTGTCCAG
GGTGTAGGGGCCCAGCTCTTYRATGYCATTGGYCAGTTKGCTYAGCTCCCAGTACAGCCRC
TCTCKGYGGMGWCCAGSGCTTTTGGGGTCAAGATGATGGATGCAGATGGCATCCACTCCA
GTGGCTGCTCCATCCTTCTCGGACCTGAGAGAGGTCACTCTGCAGCCAGAGTACAGAGGG
CCAACACTGGTGTCTTTGAATA

FIG. 8

TCGAGCGGCCGCGCAGGTCAGGAAGCACATTGGTCTTAGA CACTGCCTCCTGGA
TTCCACCTGTGCTGCGGACATCTCCAGGGAGTGCAGAAGGGAAGCAGGTCAAAGTCTCA
GATCAGTCAGACTGGCTGTTCTCAGTTCTCACCTGAGCAAGGTCAGTCTGCAGCCAGAGTA
CAGAGGGCCAACACTGGTGTCTTGAACAAGGGCTTGAGCAGACCCTGCAGAACCCTCTTC
CGTGGTGTGAACTTCCTGGAACCAGGGTGTTCATGTTTTTCCTCATAATGCAAGGTTG
GTGATGG

FIG. 9

Bal Probe '1		Probe 2		Probe 1		Probe 2		Probe 1		Probe 2	
Gene Name	Exp Name	P1	P2	Num	GEH ID	Value	S/B	AN	Value	S/B	AN
-421000188 (D1)	17.0 205A Ovary T				422X0606	8620	57.7	65	1240	57.7	65
-421000188 (D1)	15.9 523 Ovary Tumor				422X0628	5894	35.3	89	1002	35.3	89
-421000188 (D1)	15.7 485A Ovary T				422X0607	12151	54.3	71	2124	54.3	71
-421000188 (D1)	15.1 426A Ovary T (met)				422X0611	7487	53.0	73	1480	53.0	73
-421000188 (D1)	14.5 266A Ovary Tumor				422X0624	7302	39.2	84	2416	39.2	84
-421000188 (D1)	14.3 483A Ovary T (met)				422X0609	3714	20.4	83	1113	20.4	83
-421000188 (D1)	13.0 913A Ovary T (SC H)				422X0601	2435	12.1	75	814	12.1	75
-421000188 (D1)	12.6 481A Ovary T (met)				422X0608	4578	25.0	69	1754	25.0	69
-421000188 (D1)	12.2 261A Ovary Tumor				422X0609	7004	18.5	81	3506	18.5	81
-421000188 (D1)	12.0 386A Ovary T				422X0605	2101	14.0	90	1081	14.0	90
-421000188 (D1)	12.0 5115 Ovary T (met)				422X0624	1979	9.4	80	974	9.4	80
-421000188 (D1)	12.0 465A Ovary Tumor				422X0626	1911	13.9	93	964	13.9	93
-421000188 (D1)	12.0 115A Ovary Tumor				422X0612	1666	9.8	100	837	9.8	100
-421000188 (D1)	11.9 428A Ovary T (met)				422X0624	1827	13.4	97	3480	13.4	97
-421000188 (D1)	11.6 261A Ovary Tumor				422X0603	5914	30.4	86	3653	30.4	86
-421000188 (D1)	11.6 266A Ovary T				422X0627	2019	11.9	50	1274	11.9	50
-421000188 (D1)	11.6 512 Ovary Tumor				422X0603	1736	11.0	92	1072	11.0	92
-421000188 (D1)	11.4 9485 T Ovary TCS				422X0622	4204	24.0	93	3074	24.0	93
-421000188 (D1)	11.4 262A Ovary Tumor				422X0619	1613	16.6	89	2101	16.6	89
-421000188 (D1)	11.3 525 Ovary Tumor				422X0614	2521	9.6	90	1297	9.6	90
-421000188 (D1)	11.2 429A Ovary T (met)				422X0610	2072	22.0	65	2084	22.0	65
-421000188 (D1)	11.2 382A Ovary T				422X0625	1663	10.9	88	1663	10.9	88
-421000188 (D1)	11.2 288A Ovary Tumor				422X0620	1840	10.7	87	1473	10.7	87
-421000188 (D1)	11.1 201A Ovary Tumor				422X0620	1329	9.1	90	1204	9.1	90

FIG. 10

FIG. 11

Gene Name	Bal Probe 1		P1	Probe 2		QEM ID	Probe1		Probe2	
	Exp Name	Exp Name		P2 Name	P2 Name		Value	B/B	Value	B/B
42100182 (107)	116.7 426A Ovary T (unc)	116.7 426A Ovary T (unc)	116.7 426A Ovary T (unc)	415A Aorta N	415A Aorta N	422X0611	7706	46.3	462	75
42100182 (107)	110.7 205A Ovary T	110.7 205A Ovary T	110.7 205A Ovary T	270A Liver N	270A Liver N	422Q0606	10171	61.2	950	41
42100182 (107)	109.9 185A Ovary T	109.9 185A Ovary T	109.9 185A Ovary T	S91 Fetal tissue	S91 Fetal tissue	422X0607	14415	62.1	1439	48
42100182 (107)	118.8 523A Ovary Tumor	118.8 523A Ovary Tumor	118.8 523A Ovary Tumor	S86 Spinal Cord N	S86 Spinal Cord N	422Q0628	7781	47.3	880	71
42100182 (107)	116.4 185A Ovary T (unc)	116.4 185A Ovary T (unc)	116.4 185A Ovary T (unc)	11 Colon N	11 Colon N	422H0609	4807	27.6	748	47
42100182 (107)	115.1 261A Ovary Tumor	115.1 261A Ovary Tumor	115.1 261A Ovary Tumor	S71 Breast N	S71 Breast N	42210623	9815	57.1	1909	74
42100182 (107)	114.9 429A Ovary T (unc)	114.9 429A Ovary T (unc)	114.9 429A Ovary T (unc)	461A Ovary N	461A Ovary N	42210614	2601	20.3	543	61
42100182 (107)	113.5 261A Ovary Tumor	113.5 261A Ovary Tumor	113.5 261A Ovary Tumor	S72 Pancreas N	S72 Pancreas N	422H0629	7934	18.8	2274	71
42100182 (107)	112.8 261A Ovary Tumor	112.8 261A Ovary Tumor	112.8 261A Ovary Tumor	C14 Bone Marrow	C14 Bone Marrow	42210619	480	3.5	1375	80
42100182 (107)	112.5 5115 Ovary T (unc)	112.5 5115 Ovary T (unc)	112.5 5115 Ovary T (unc)	S10 Skeletal muscle	S10 Skeletal muscle	42210621	8993	34.6	3245	69
42100182 (107)	112.3 9331 Ovary T (unc)	112.3 9331 Ovary T (unc)	112.3 9331 Ovary T (unc)	C110 Small intestine	C110 Small intestine	42210601	1864	8.1	748	67
42100182 (107)	112.1 522 Ovary Tumor	112.1 522 Ovary Tumor	112.1 522 Ovary Tumor	P1 Skin N	P1 Skin N	422K0601	2552	12.7	1413	41
42100182 (107)	112.0 181A Ovary T (unc)	112.0 181A Ovary T (unc)	112.0 181A Ovary T (unc)	C19 Embryo N	C19 Embryo N	422Q0627	186	3.2	889	69
42100182 (107)	111.9 182A Ovary T	111.9 182A Ovary T	111.9 182A Ovary T	S73 Placental cells	S73 Placental cells	42210606	1516	18.7	1567	55
42100182 (107)	111.8 262A Ovary Tumor	111.8 262A Ovary Tumor	111.8 262A Ovary Tumor	C119 Brain N	C119 Brain N	422Q0610	608	4.2	1350	60
42100182 (107)	111.7 262A Ovary T	111.7 262A Ovary T	111.7 262A Ovary T	C15 Brain N	C15 Brain N	422Q0614	2064	13.6	1080	67
42100182 (107)	111.6 262A Ovary Tumor	111.6 262A Ovary Tumor	111.6 262A Ovary Tumor	S27 Ovary N	S27 Ovary N	42250603	1580	7.0	847	58
42100182 (107)	111.5 262A Ovary Tumor	111.5 262A Ovary Tumor	111.5 262A Ovary Tumor	44A Large Intestine	44A Large Intestine	422A0622	2549	13.2	1651	71
42100182 (107)	111.4 186A Ovary T	111.4 186A Ovary T	111.4 186A Ovary T	S10 Placental cells	S10 Placental cells	42210605	531	3.9	738	62
42100182 (107)	111.3 288A Ovary Tumor	111.3 288A Ovary Tumor	111.3 288A Ovary Tumor	C112 Lung N	C112 Lung N	422V0605	893	5.3	1120	66
42100182 (107)	111.2 135A Ovary Tumor	111.2 135A Ovary Tumor	111.2 135A Ovary Tumor	S7 Ovary N	S7 Ovary N	42220626	440	3.3	567	60
42100182 (107)	111.1 91851 P Ovary T (unc)	111.1 91851 P Ovary T (unc)	111.1 91851 P Ovary T (unc)	9185 S P Ovary T (unc)	9185 S P Ovary T (unc)	422X0602	4488	21.6	3529	66
42100182 (107)	111.0 428A Ovary T (unc)	111.0 428A Ovary T (unc)	111.0 428A Ovary T (unc)	241A Esophagus N	241A Esophagus N	422H0612	725	6.2	689	65
42100182 (107)	110.9 201A Ovary Tumor	110.9 201A Ovary Tumor	110.9 201A Ovary Tumor	S6 Stomach N	S6 Stomach N	422W0620	1008	7.4	1018	62

FIG. 12

Gene Name	Bal Probe 1		P1	Probe 2		QEM ID	Probe1		Probe2	
	Exp Name	Exp Name		P2 Name	P2 Name		Value	B/B	Value	B/B
421V00189 (001)	11.2 426A Ovary T (met)	11.2 426A Ovary T (met)	11.2 426A Ovary T (met)	415A Aorta N	422X0611	422X0611	8072	55.2	243	2.4
421V00189 (001)	11.7 523A Ovary Tumor	11.7 523A Ovary Tumor	11.7 523A Ovary Tumor	536 Spinal Cord N	422X0628	422X0628	7167	42.6	547	2.5
421V00189 (001)	11.2.6 429A Ovary T (met)	11.2.6 429A Ovary T (met)	11.2.6 429A Ovary T (met)	461A Ovary N	422X0614	422X0614	2850	21.7	227	3.5
421V00189 (001)	11.0 485A Ovary T	11.0 485A Ovary T	11.0 485A Ovary T	S91 Fetal Uterine	422X0607	422X0607	11711	54.0	1469	2.2
421V00189 (001)	17.3 261A Ovary Tumor	17.3 261A Ovary Tumor	17.3 261A Ovary Tumor	S71 Breast N	422X0623	422X0623	6949	37.8	952	2.6
421V00189 (001)	5.8 525A Ovary Tumor	5.8 525A Ovary Tumor	5.8 525A Ovary Tumor	C74 Bone Marrow	422X0619	422X0619	208	2.1	1210	2.9
421V00189 (001)	15.0 205A Ovary T	15.0 205A Ovary T	15.0 205A Ovary T	270A Liver F	422X0606	422X0606	8676	52.3	1747	2.6
421V00189 (001)	14.5 483A Ovary T (met)	14.5 483A Ovary T (met)	14.5 483A Ovary T (met)	H Colon N	422X0609	422X0609	3149	17.4	707	2.0
421V00189 (001)	14.4 261A Ovary Tumor	14.4 261A Ovary Tumor	14.4 261A Ovary Tumor	S10 Skeletal muscle	422X0621	422X0621	6312	29.1	1443	2.9
421V00189 (001)	14.2 261A Ovary Tumor	14.2 261A Ovary Tumor	14.2 261A Ovary Tumor	52 Pancreas F	422X0609	422X0609	7612	38.4	1809	1.3
421V00189 (001)	1.2 482A Ovary T	1.2 482A Ovary T	1.2 482A Ovary T	C119 Heart F	422X0610	422X0610	408	3.4	1508	2.3
421V00189 (001)	1.9 0164 Ovary T (SCH)	1.9 0164 Ovary T (SCH)	1.9 0164 Ovary T (SCH)	P51a F	422X0601	422X0601	2500	12.3	800	2.1
421V00189 (001)	12.5 5115 Ovary T (met)	12.5 5115 Ovary T (met)	12.5 5115 Ovary T (met)	C710 Small intestine	422X0604	422X0604	1434	6.7	569	6.1
421V00189 (001)	1.4 265A Ovary Tumor	1.4 265A Ovary Tumor	1.4 265A Ovary Tumor	C75 Heart F	422X0624	422X0624	1742	14.8	723	2.8
421V00189 (001)	12.1 484A Ovary T (met)	12.1 484A Ovary T (met)	12.1 484A Ovary T (met)	272A Esophageal cells	422X0608	422X0608	1083	17.0	142	2.0
421V00189 (001)	1.9 266A Ovary T	1.9 266A Ovary T	1.9 266A Ovary T	S27 Ovary F	422X0603	422X0603	1570	8.0	742	2.0
421V00189 (001)	1.9 486A Ovary T	1.9 486A Ovary T	1.9 486A Ovary T	S10 PTHrP Tactant	422X0605	422X0605	367	2.6	580	2.0
421V00189 (001)	11.7 262A Ovary Tumor	11.7 262A Ovary Tumor	11.7 262A Ovary Tumor	314A Large Intestine	422X0622	422X0622	2097	11.2	1202	2.7
421V00189 (001)	1.3 415A Ovary Tumor	1.3 415A Ovary Tumor	1.3 415A Ovary Tumor	S7 Ovary F	422X0626	422X0626	373	2.9	470	2.0
421V00189 (001)	1.1 288A Ovary Tumor	1.1 288A Ovary Tumor	1.1 288A Ovary Tumor	C712 Lung F	422X0625	422X0625	969	5.6	1094	2.9
421V00189 (001)	1.1 201A Ovary Tumor	1.1 201A Ovary Tumor	1.1 201A Ovary Tumor	S6 Stomach N	422X0620	422X0620	750	5.6	672	2.4
421V00189 (001)	1.1 428A Ovary T (met)	1.1 428A Ovary T (met)	1.1 428A Ovary T (met)	241A Esophagus F	422X0612	422X0612	498	4.2	446	2.1
421V00189 (001)	1.0 9485 1 P Ovary T (S)	1.0 9485 1 P Ovary T (S)	1.0 9485 1 P Ovary T (S)	9485 5 P Ovary T (S)	422X0602	422X0602	3147	16.7	3174	8.2
421V00189 (001)	5.22 Ovary Tumor	5.22 Ovary Tumor	5.22 Ovary Tumor	C719 Kidney N	422X0627	422X0627	224	2.3	409	2.3

FIG. 13

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Gene Name	Bal Probe	Exp Name	P1	P2 Name	Probe 3	GEM ID	Probe1 Value	Probe2 Value	Probe1		Probe2	
									B/B	A%	B/B	A%
42100187 (E11)	420.2	426A Ovary T (tunc)		415A Aorta N		422X0611	5441	270	36.3	50	2.3	50
42100187 (E11)	410.0	52A Ovary Tumor		S26 Splined Card N		42200628	5018	533	27.1	56	2.1	56
42100187 (E11)	413.1	429A Ovary T (tunc)		361A Ovary F1		42200614	1252	150	10.1	58	2.5	58
42100187 (E11)	42.7	485A Ovary T		S91 Fetal tissue		422X0607	9507	1668	35.8	45	2.1	45
42100187 (E11)	41.4	205A Ovary T		200A Liver F1		42200606	5456	1245	31.4	50	2.0	50
42100187 (E11)	41.2	265A Ovary Tumor		CT5 Head F1		42200624	1834	438	11.9	48	2.0	48
42100187 (E11)	41.1	482A Ovary T		CT19 Head F1		42200610	109	1259	2.6	48	2.0	48
42100187 (E11)	41.6	261A Ovary Tumor		S10 Skeletal muscle		42200614	1711	1036	17.7	55	2.3	55
42100187 (E11)	41.1	264A Ovary Tumor		S3A Head F1		42200614	4161	1249	24.0	62	1.0	62
42100187 (E11)	41.5	511A Ovary T (tunc)		CT10 Small intestine		12200601	1365	627	8.8	47	2.1	47
42100187 (E11)	41.1	264A Ovary T (tunc)		S2 Pancreas F1		42200609	3455	1640	14.9	60	1.0	60
42100187 (E11)	41.1	481A Ovary T (tunc)		CTA Dehydrated cells		42200608	2667	1270	13.4	44	1.9	44
42100187 (E11)	41.1	522 Ovary Tumor		CT9 Embryo F1		42200627	291	605	2.4	51	2.5	51
42100187 (E11)	41.7	486A Ovary T		S40 PHMC Cytical		42200605	480	687	3.2	47	2.0	47
42100187 (E11)	41.6	914 Ovary T (SCH)		CT50m F1		42200604	1622	984	7.9	44	2.2	44
42100187 (E11)	41.5	262A Ovary Tumor		34A Large Intestine		42200622	1892	1245	10.1	50	2.6	50
42100187 (E11)	41.4	428A Ovary T (tunc)		CT12 Lung F1		42200625	604	908	4.1	62	2.6	62
42100187 (E11)	41.3	45A Ovary Tumor		211A Esophagus F1		42200612	246	325	2.7	78	1.9	78
42100187 (E11)	41.2	201A Ovary Tumor		S7 Ovary F1		42200636	382	501	2.9	58	2.0	58
42100187 (E11)	41.0	948S 1 P Ovary Tumor		S6 Stomach N		42200620	558	677	4.2	58	2.3	58
42100187 (E11)		485A Ovary T (tunc)		948S 5 P Ovary T (S)		42200602	2582	2493	15.1	57	6.3	57
42100187 (E11)		266A Ovary T		11 Colon F1		42200609	2261	862	12.5	38	1.7	38
42100187 (E11)		S25 Ovary Tumor		S27 Ovary F1		42200603	1739	965	9.7	36	2.2	36
				CT4 Bone Marrow		42200619	283	845	2.2	44	2.2	44

FIG. 14

11721-1

ACGGTTTCAATGGACACTTTTATTGTTTACTTAATGGATCATCAATTTTGTCTCACTACCTA
 CAAATGGAATTTTCATCTTGTTCATGCTGAGTAGTGAAACAGTGACAAAGCTAATCATAA
 TAACCTACATCAAAAGAGAACTAAGCTAACACTGCTCACTTTCTTTTAAACAGGCAAAATA
 TAAATATATGCACTCTAXAATGCACAATGGTTTACTCACTAAAAAATTCAAATGGGATCTT
 GAAGAATGTATGCAAAATCCAGGGTGCAGTGAAGATGAGCTGAGATGCTGTGCAACTGTTT
 AAGGGTTCCTGGCACTGCATCTTGGCCACTAGCTGAATCTTGACATGGAAGGTTTTAGC
 TAAFGCCAAGTGGAGATGCAGAAAATGCTAAGTTGACTTAGGGGCTGTGCACAGGAACTA
 AAAGGCAGGAAAGTACTAAATATTGCTGAGAGCATCCACCCAGGAAGGACTTTACCTTC
 CAGGAGCTCCAAACTGGCACCACCCCAAGTGCTCACATGGCTGACTTTATCTCCGTGTTT
 CATTTGGCACAGCAAGTGGCAGTG

11721-2

AAGGCTGGTGGGTTTTTGATCCTGCTGGAGAACCTCCGCTTTCATGTGGAGGAAGAAGGG
 AAGGGAAAAGATGCTTCTGGGAACAAGGTTAAAGCCGAGCCAGCCAAAAATAGAAGCTTTC
 CGAGCTTCACTTTCCAAGCTAGGGGATGTCTATGTCAATGATGCTTTTGGCACTGCTACA
 GAGCCACAGCTCCATGGTAGGAGTCAATCTGCCACAGAAGGCTGGTGGGTTTTTGATGA
 AGAAGGAGCTGAACACTTTGCAAAGGCTTGGAGAGCCAGAGCGACCCTTCTGGCCA
 TCCTGGGCGGAGCTAAAGTTGCAGACAAGATCCAGCTCATCAATAATATGCTGGACAAAG
 TCAATGAGATGATTATTGGTGGTGAATGGCTTTTACCTTCCTTAAGGTGCTCAACAACAT
 GGAGATTGGCACTTCTCTGTTTGAAGAGCGAGCCAAGATTGTCAAAGACCTAATGTCC
 AAAGCTGACAAGAATGGTGTGAAGATTACCTTGCCTGTTGACTTTGTCACTGCTGACAAGT
 TTGATGA

11724-1

TTTGTTCCTTACATTTTCTAAAGAGTACTTAAATCAGTCAACTGGTCTTTGAGACTCTTA
 AGTCTGATTCCAACCTAGCTAATTCATCTGAGAACTGTGGTATAGGTGGCGTGTCTCTTC
 TAGCTGGGACAAAAGTCTTTGTTTCCCTGTAGAGTATCACAGACCTTCTGCTGAAGC
 TGGACCTCTGTCTGGGCTTGGACTCCCAATCTGCTTGTATGTTCAAGCCTGGAAATGTT
 AATCTTTAATCTTCCATATGGAATGGACATCTGTCTAAGTTGATCCTTTAGAACACTGCAAT
 TATCTCTTTGAGTCTAATTTCTCTCTCTTGGCTTGAATCCCATCACTAAACTTCTCTCCC
 ATTCTTAGCTTCACTATCACCTGTACAGATCATCTGGAGGGAAGACATGCTCTTAGTA
 AAGCCTGCAAGCTGGGTACAGTACTGTCCAAGTTTTCTGAAGTTGCTGAACCTTCTGT
 CTTTCTTGTTCAAAGTAACCTGAATCTCTCCAATTGTCTCTTCCAAGTGGACTTTTTCTCTGC
 GCAAAGCATCCAG

11724-2

TCATTCCCTGTGATGGCATCTCGAATGTGATGAGCAGCCACGAAGTTGTAGATTTCAATCA
 ATCAAAGGATTACCAATGTGGTGAAGCTGTGAGGCAAGAGAAACAAGA.AACTGTATGGCA
 AGTTAAGAAGCACAGAGGCAACAAGCAGACACAGAAAGCAGTTGCAGGAAGCTGAG
 CAAGAATGGAGCAATGAAGAAGATGAGAAAGTTTGCTAAATCTAAACAGCAGAA
 AATCCTAGAGCTGGAAGAAGAGAATGACCCGCTTAGGGCAGAGGTGCACCCTGCAGGAG
 ATACAGCTAAAGAGTGTATGGAACACTTCTTCCAATGCCAGCATGAAGGAAGAAC
 TTGAAGGGGTCAAAATGGAGTATGAAACCTTTCTAAGAAGTTTCAGTCTTTAATGTCTGA
 GAAAGACTCTCTAAGTGAAGAGGTTCAAGATTTAAAGCATCAGATAGAAGGTAATGTATC
 TAAACAAGCTAACCTAGAGCCCAAGGAGAAACAAGATAACCAAACGAATGTCACTGAAGA
 GGAACACAGTCTATACCAGGT

FIG. 15A

13

CAAGCTTTTTTTTTTTTTTAAAAAGTGTTAGCATTAAATGTTTTATTGTCACGCAGATGGCA
ACTGGGTTTATGTCCTTCATATTTATATTTTGTAAATTAATAAAATTACAAGTTTTAAATA
GCCAATGGCTGGTTATATTTTTCAGAAAACATGATTAGACTAATTCATTAAATGGTGGCTTCA
AGCTTTTCCTTATTGGCTCCAGAAAAATGCACCCACCTTTTGCCCTTCTTAAAAAACTGGAA
TGTGGCATGCCATTTGACTTCACACTCTGAGGCAACATCCTGACAGTCATCCACATCTACTT
CAAGGAATATCACGTTGGAAATCTTTTCAGAGAGGGAATGAAAGAAAGGCTTGATCATTT
TGCAGGCCCCACACCACGTGGCTGAGAAGTCAACTACTACAAGTTTATCACCTGCAGCGTC
CAAGGCTTCTGAAAAGCAGCTCTGGCTCTCGATCTGCTTCCACTCTTGGCTGCTGGAGTCT
GACGAGCGGCTGTAAAGGATCCGATGGAATGGATCCAAAGCACCAAAACAGAGCTTCAAGA
CTCGCTGCTTGGCTTGAATTCGGATCCGATATGCCATGGCT

AAGTGTTAGCAATAATGTTTTATGTCACGCAGATGGCAACTGGGTTTTATGTCTTCATATTTT
TATATTTTGTAAATAAAAAAATMCAAGTTTTAAATAGCCAATGGCTCGTTATATTTTT
AGAAAACATGATTAGACTAATTCATAATGOTGGCTTCAAGCTTTTTCTTATTGGCTCCAG
AAAAATCACCCACCTTTGTCCCTCTTAAAAAACTGGAATGTTGGCATGCCATTTGACTTCA
CACTCTGAAGCAACATCTCTGACAGTCATCCACATCTACTTCAAGGAATATCACGTTGGAAT
ACTTTTCAGAGACGGAAATGAAGAAGGCTTGATCATTTTGAAGGCCACACCACGTGG
CTGAGAAGTCAACTACTACAAGTTATCACCTGCAGCGTCCAAGGCTTCTGTAAAAGCAGT
CTTGCTCTCGATCTGCTTCAACCATCTTGGCTGCTGGAGTCTGACGAGCGGCTGTAAAGGACC
GATCGAAATGGATCCAAAGCACCAACAGAGCTTCAAGACTCGCTGCTGGCATGAATTC
GGATCCGA

FIG. 15B

11723.1.40.19.19

TACAAACTTTATTGAAACGGCACACGGCGCACACACAAACACCCCTGTGGATAGGGAAAA
GCACCTGGCCACAGGGTCCACTGAAACGGGGAGGGGATGGCAGCTTGTAATGTGGCTTTT
GCCACAACCCCTTCTGACAGCGAAGGCCTTAGATTGAGGCCCCACCTCCCATGGTGATGG
GGAGCTCAGAATGGGGTCCAGGGAGAATTTGGTTAGGGGGAGGTGCTAGGGAGGCATGA
GCAGAGGGCACCCCTCCGAGTGGGGTCCCCAGGGCTGCAGAGTCTTCAGTACTGTCCCTCAC
AGCAGCTGTCTCAAGGCTGGGTCCCTCAAAGGGGGCTCCAGCGCGGGGCTCCCTGCGC
AAACACTTGGTACCCCTGGCTGCGCACCGGAAGCCAGCAGGACAGCAGTGGCGCCGATCA
GCACAACAGACGCCCTGGCGGTAGGGACAGCAGGCCCCAGCCCTGTGCGTTGTCTCGGCAG
CAGGTCGTGTTATCATGGCAGAAGTGTCTTCCACACTTCACGTCCTTCACACCCACGTG
AXGGCTACXGGCCAGGAAG

11723.2.40.19.19

CCCGTGGGTGCCATCCACGGAGTTGTTACCTGATCTTTGGAAGCAGGATCGCCCGTCTGCA
CTGCAGTGGAAAGCCCCGTGGGCAGCAGTGTGGCCATCCCCGATGCCACGGCCTCTGGG
AAGGGGCAGCAACTGGAAGTCCCTGAGACGGTAAAGATGCAGGAGTGGCCGGCAGAGCA
GTGGGCATCAACCTGGCAGGGGCCACCCAGATGCCTGCTCAGTGTGTGGGCCATTTGTCC
AGAAGGGGACGGCAGCAGCTGTAGCTGGCTCCTCCGGGGTCCAGGCAGCAGGCCACAGGG
CAGAACTGACCATCTGGGCACCGCGTTCCAGCCACCAGCCCTGCTGTTAAGGCCACCCAGC
TCACCAGGGTCCACATGGTCTGCTTGGCTCCGACTCCGCGGTCTTGGGCCCTGATGGTTC
TACCTGCTGTGAGCTGCCCAGTGGGAAGTATGGCTGCTGCCAATGCCCAACGCCACCTGCT
GCTCCGATCACCTGCACTGCTGCCCAAGACACTGTGTGTGACCTGATCCAGAGTAAGTGC
CTCTCCAAGGAGAACG

11730-1

GAATCACCTTTCTGGTTTACCTAGTACTTGTACAGAACAAATGAGGTTTCCACACCGGAG
TCTCCCTGGGCTCTGTTTGGCTCTCGGTAAAGCCAGGCCTACACCTTTCTCTCTCTATGG
AGAGGGGAATATGCCATTAAGGTGAAGAGTCACCTTCCAAAAGTGAGAAAGGGATTGATTT
GCTGCTTCAGGACTGTGGAAATTTTGGAAATGTTTACAAATGGTTGCTACAAAACAACAA
AAAAGGTAAATACAAAATGTGTACATCACAAATGCTTTTAAAGACATTATGCATTGTGC
TCACATTCCTTAAATGTTTGTTCCTAAGGTGCTCAGCCTCTAGCCAGCTGGATTCTCCGG
GAAGAGGCAGAGACAGTTTCCCGAAAAAGACACAGGGAAGGAGGGGGTGGTGAAGGA
GAAAGCAGCCTTCCAGTTAAAGATCAGCCCTCAGTTAAAGGTCAGCTTCCCGCAXGCTGGC
CTCAXGCGGAGTCTGGGTGAGAGCGAGGAGCAGCAGCAGGGTGGGACTGGGGCGT

11730-2

AACCGGAGCGCGAGCAGTAGCTGGCTGGCCACCATGGCTGGGATCACCACCATCGAGGCG
GTGAAGCGCAAGATCCAGGTTCTGCAGCAGCAGCCAGATGATGCAGAGGAGCGAGCTGA
GCGCCTCCAGCGAGAGTTGAGGGAGAAAGCGGGGGGGGGAACAGGCTGAGGCTGAGG
TGGCCTCCTTGAACCGTAGGATCCAGCTGGTTGAAGAAGAGCTGGACCGTGCTCAGGAGC
GCCTGGCCACTGCCCTGCAAAAGCTGCAAGAAGCTGAAAAAGCTGCTGATGAGAGTGAGA
GAGGTATGAAGGTTATTGAAAACCGGCCCTTAAAAGATGAAGAAAAGATGGAAGTCCAG
GAAATCCAAGCTCAAAGAAGCTAAGCACATTCCAGAGAGGAGATAGGAAGTATGAAGA
GGTGGCTCGTAAGTTGGTGATCATTCAGGAGACTTGGAAACGCACAGAGGAACGAGCTGA
GCTGCCAGAGTCCCGTTGCCGAGAGATGGATGAGCAGATTAGACTGATGGACCAGAACCT
GAAGTGTCTGAGTGC

FIG. 15C

11732.1contig

GAGAACTTGGCCTTTATTGTGGGCCCCAGGAGGGCACAAGGTCAGGAGGCCCAAGGGAGG
GATCTGGTTTTCTGGATAGCCAGGTCATAGCATGGGTATCAGTAGGAATCCGCTGTAGCTG
CACAGGCCTCACTTGCTGCACTTCCGGGGAGAACACCTGCCTGCATGGCGTTGATGACCT
CGTGGTACACGACAGAGCCATTGGTGCAGTGCAAGGGCACGGCGCATGGGCTCCGTCTCG
AGGGCAGGCAGCAGGAGCATTGCTCCTGCACATCCTCGATGTCAATGGAGTACACAGCTT
TGCTGGCACACTTTCCCTGCCAGTAATGAATGTCCACTTCTCTTGGGACTTACAATCTCCC
ACTTTGATGTACTGCACCTTGGCTGTGATGTCTTTGCAATCAGGCTCCTCACATGTGTACA
GCAGGTGCCTGGAAATTTTACGATTTTGCCTCCTTCAGCCAGACACTTGTGTTTCATCAAATG
GTGGGCAGCCCGTGACCCTCTTCTCCAGATGTACTCTCCTCT

11732.2contig

GCCTGGACCTTGCCGGATCAGTGCCACACAOTGACTTGCTTGGCAAAATGGCCAGACCTTGC
TGCAGAGTCATCGTGTCAATTGTGACCATGGACCCCGGCTTCATGTGCCAACAGCCAGTC
TCCTGTTCCGGGTGGAGGAGACGTGTGGCTGCCGCTGGACCTGCCCTTGTGTGTGCACGGGC
AGTTCCACTCGGCACATCGTCACCTTCGATGGGCAGAAATTTCAAGCTTACTGGTAGCTGCT
CCTATGTCATCTTTCAAAACAAGGAGCAGGACCTGGAAGTGCTCCTCCACAATGGGGCCTG
CAGCCCCGGGGCAAAACAAGCCTGCATGAAGTCCATTGAGATTAAGCATGCTGGCGTCTC
TGCTGAGCTGCACAGTAACATGGAGATGGCAGTGGATGGGAGACTGGTCCTTGGCCCGTA
CGTTGGTGAAAACATCGAAGTCAGCATCTACGGCGCTATCATGTATGAAGTCAGGTTTACC
CATCTTGGCCACATCCTCACATACAGCGCCXCAAAACAACGAGTT

11735-1-2

AGATCAACCTCTCCTGGTCAGGAGGAATGCCCTTCTTGTCTTGGATCTTTGCTTTGACGTTT
TCGATAGTRWCACTKXRYTSRAMSKMAAGKGYRATGRWMTTKSYWGWRA SYXTMWWM
RSGRARAYTTGCAVCCCMCTGWAGCGSAGKACCARGTGCAAGGTGGACTCTTTCTG
GATGTTGTAGTCAGACAGGGTGGGTCCATCTTCCAGCTGTTTCCAGCAAAAGATCAACCTC
TGCTGATCAGGAGGATGCCCTTCTTATCTTGGATCTTTGCCCTTGACATTCTCGATGGTGTG
ACTGGCCTCCACCTCGAGGGTGAATGGCTTACCAGTCAGGGTCTTCACGAAGATYTGCATC
CCACCTCTGAGACGGAGCACCAGGTCCAGGCTGACTCTTCTGGATGTTGTAGTCAGACA
GGGTGGCYCCATCTTCCAGGTGCTTCCSAGCAAGATCAACCTCTGCTGGTCAAGGAGGRAT
GCCTTCTTGTCTGATCTTTGGCTTACRTTCTCRATGGTGTCACTCGGCTCCACTTCGA
GAGTGATGGTCTTACCAGTCAGGGTCTTCACGAAGATCTGCATCCACCTCTAA

11740.2.contig

AAGTCACAAACAGACAAAGATTATACCAGCTGCAAGCTATATTAGAAGCTGAACGAAGA
GACAGAGGTGATGATTCTGAGATGATTGGAGACCTTCAAGCTCGAATTACATCTTTACAAG
AGGAGGTGAAGCATCTCAAAACATAATCTCGAAAAAGTGGAAGGAGAAAGAAAAGAGGCT
CAGACATGCTTAATCACTCAGAAAAGCAAAAGATAATTTAGAGATACATTTAACTAC
AACTTTAAATCATTACAACAACGGTTAGAAACAAGAGGTAAATGAACACAAAGTAACCAA
CCTCGTTAACTGACAAAACATCAATCTATTGAAGAGGCAAAAGTCTGTGGCAATGTGTGAG
ATGGAAAAAAGCTGAAAGAAAGAAAGAGAGCTCGAGAGAAGGCTGAAAAATCGGGTTGT
TCAGATTGAGAAAACAGTGTCTTCCATGCTAGACGTTGATCTGAAGCAATCTCAGCAGAACT
AGAACAATTGACTGGAATAAAGAAAGGATGGACGATGAAGTTAAGAATCTA

FIG. 15D

11765.2&64.2.contig

CGCCTCCACCATGTCCATCAGGGTGACCCAGAAGTCTACAAGGTGTCCACCTCTGGCCCC
CGGGCCTTCAGCAGCCGCTCCTACACGAGTGGGCCCCGTTCCCGCATCAGCTCCTCGAGCT
TCTCCCGAGTGGGCAGCAGCAACTTTCCGGTGGCCTGGGCGGCGGCTATGGTGGGGCCA
GCGGCATGGGAGGCATCACCGCAGTTACGGTCAACCAGAGCCTGCTGAGCCCCCTTGTCCT
GGAGGTGGACCCCAACATCCAGGCCGTGGCACCCAGGAGAAGGAGCAGATCAAGACCT
CAACAACAAGTTTGCCTCCTTCATAGACAAGGTACGGTTCCTGGAGCAGCAGAACAAGAT
GCTGGAGACCAAGTGGAGCCTCCTGCAGCAGCAGAAGACGGCTCGAAGCAACATGGACA
ACATGTTTCGAGAGCTACATCAACARCCTTAGCGCGCAGCTGGAGACTCTGGGCCAGGAGA
AGCTGAAGCTGGAGGCGGAGCTTGGCAACATGCAGGGGCTGGTGGAGGACTTCAAGAAC
AAGTATGAGGATGAGATCAATAAGCGTACAGAGATGGAGAACGAATTTGCTCATCAAG
AAGGATGTGGATGAAGCTTACATGAACAAGGTAGAGCTGGAGTCTCGCTGGAAGGGCTG
ACCGACGAGATCAACTTCCTCAGGCAGCTGTATGAAGAGGAGATCCGGGAGCTGCAGTCC
CAGATCTCGGACACATCTGTGGTCTGTCCATGGACAACAGCCGCTCCCTGGACATGGACA
GCATCATTGCTGAGGTCAAGGCACAGTACGAGGATATTGCCAACCGCAGCCGGCTGAGG
CTGAGAGCATGTACCAGGTCAAGTATGAGGAGCTGCAGAGCCTGGCTGGGAAGCACGGGG
ATGACCTGCGGCGCACAAAGACTGAGATCTCTGAGATGAACCCGGAACATCAGCCCGGCT
XCAGGCTGAGATTGAGGGCCTCAAAGGCCAGAXGGCTTXCCTGGAXGXCCGCCAT

11767.2.contig

CCCCGAGCCAGCCAACGAGCCGAAAAATGGCAGACAATTTTCGCTCCATGATGCGTTATCT
GGTCTGGAAACCCAAACCCCTCAAGGATGGCCTGGCGCATGGGGGAACAGCCTGCTGGG
GCAGGGGGCTACCCAGGGGCTTCTATCTGGGGCTACCCCGGCCAGGCACCCCAAGG
GCTTATCCTGGACAGGCACCTCCAGCGGCTACCTGGAGCACCTGGAGCTTATCCCGGAG
CACCTGCACCTGGAGTCTACCCAGGGCTACCCAGCGGCCCTGGGGCTACCCATCTTCTGG
ACAGCCAAGTGCCACCGGAGCCTACCTGGCACTGGCCCCCTATGGCGCCCTGCTGGGCA
CTGATTGTGCTTATAACCTGCTTGGCTGGGGAGTGGTGCCTCGCATGCTGATAACAA
TTCTGGGCACGGGTGAAGCCCAATGCAACAGAAATGCTTTAGATTCCAAAGAGGGAATG
ATGTTGCTTCCACTTAAACCCAGGCTCAATGAGAACAACAGGAGAGTCAATTGGTTGCAA
TACAAAGCTGGATAA

11768-1&2

GGGAATGCAACAACCTTTATTGAAAGGAAAGTGCAATGAAATTTGTTGAAACCTTAAAAGG
GGAAACTTAGACACCCCCCTCRA₂CGMAGKACCARGTGCA₂GTGGACTCTTTCTGGAT
GTTGTAGTCAGACAGGOTRCGWCCATCTTCCAGCTGTTTYCCRGCAAGATCAACCTCTGC
TGATCAGGAGGRATGCCCTTCTTATCTTGGATCTTTGCCCTTGACATTCTCGATGGTGTCACT
GGGCTCCACCTCGAGGGTGATGGTCTTACCAGTCAGGGTCTTACGAAGATYTGCAATCCA
CCTCTGAGACCGAGCACAGGTGCAGGCTGACTCTTTCTGGATGTTGTAGTCAGACAGG
GTGCGYCCATCTTCCAGCTGCTTCCS₂GCAAGATCAACCTCTGCTGGTCAGGAGGRATGC
CTTCTTGTCTYTGATCTTTGCTTACR₂CTCAATGGTGTCACTCGGCTCCACTTCGAGA
GTGATGGTCTTACCAGTCAGGGTCTTACGAAGATCTGCATCCACCTCTAAGACGGAGCA
CFAGGTGCAGGGTGGACTCTTCTGCA₂TTGTAGTCAGACAGGGTGGCTCCATCTTCCA
GCTGTTTCCAGCAAGATCAACCT

FIG. 15E

59

000F80-10895960

11770.2.contig

GCAAGGAACTGGTCTGCTCACTTGTGGCTTGGCGATCAGGACTGGCTTTATCTCCTGA
CTCAGGTGCAAAGGTGCACTCTCGGAACGTTAAGTCCGTCGCCAGCGCTTGGAAATCCTAC
GGCCCCACAGCCGGATCCCTCAGCCTTCCAGGTCTCAACTCCCGTGGACGCTGAACAA
TGGCCTCCAATGGGGCTACAGGTAATGGGCATCGCGCTGGCCGCTCCTGGGCTGGCTGGCCGT
CATGCTGTGCTGGCGCTGCCATGTGGCGCGTGACGGCCTTCATCGGCAGCAACATTGTC
ACCTCGCAGACCATCTGGGAGGGCCTATGGATGAACTGCGTGGTGCAGAGCACCGGCCAG
ATGCAGTGCAAGGTGTACGACTCGCTGCTGGCACTGCCGAGGACCTGCAGGCGGCCCGC
GCCCTCGTCATCATCA

11773.1.contig

TGCAAAAGGGACACAGGGGTTCAAAAATAAAAAATTTCTTCCCCCTCCCCAAACCTGTAC
CCCAGTCCCCGACCACAACCCCTTCTCTCCCGGGGAAAGCAAGAAGGAGCAGGTGTG
GCATCTGCAGCTGGGAAGAGAGAGGCGGGAGGTGCCGAGCTCGGTGCTGGTCTCTTTC
CAAATATAAATACXTGTGTCAGAACTGGAATACTCCAGCACCCACCACCCAAGCACTCT
CCGTTTCTGCGCGGTGTTGGAGAGGGCGGGGGGAGGGGCGCCAGGCACCGGCTGGCT
GCGGTCTACTGCATCCGCTGGGTGTGCACCCCGGAGCCTCCTGCTGCTCATTGTAGAAGA
GATGACACTCGGGGTCCCCCGGATGGTGGGGGCTCCCTGGATCAGCTTCCCGGTGTTGGG
GTTACACACACCAGCACTCCCCACGCTGCCCGTTCAAGAGACATCTTGCACTGTTTGAGGTTG
TACAGGCCATGCTTGTACAGTTG

11773.1.contig

GGGTTGGAGGGACTGGTCTTTATTTCAAAAAGACACTTGTCAATATTCAGTATCAAAACA
GTTGCACTATTGATTTCTCTTCTCCCAATCGGCCCCAAAGAGACCACATAAAAGGAGAGT
ACATTTTAAGCCAATAAGCTGCAGGATGTACACCTAACAGACCTCCTAGAAACCTTACCAG
AAAATGGGGACTGGGTAGCGAAGGAACTTAAAAGATCAACAACTGCCAGCCACGGA
CTGCAGAGCCTGTACAGCCAGATGGCGTGGCCAGGGTGCCACAAACCCAAAGCAAGTT
TCAAAATAATATAAAAATTTAAAAGTTTGTACATAAGCTATTCAAGATTTCTCCAGCACT
GACTGATACAAAGCACAAATGAGATGGCACTTCTAGAGACAGCAGCTTCAAACCCAGAAA
AGGGTGATGAGATGAGTTTACATGGCTAAATCAGTGGCAAAAACACAGTCTTCTTTCTTT
CTTTCTTTCAAGGAGGCAGCAAGCAATTAAGTGGTCACCTCAACATAAGGGGGACATGA
TCCATTCTGTAACCAAGTTGTGAACGGG

11778-2&30-2

CAGGAACCGGAGCCCGAGCAGTAGCTGGGTGGCCACCATGGCTGGGATCACCACCATCGA
GGCGGTGAAGCGCAAGATCCAGGTTCTGCACCAGCAGGCAGATGATGCAGAGGACCGAG
CTGAGCGCCTCCAGCGAGAAGTTGAGCGAGAAAAGCGGGGCGCGGAACAGGCTGAGGCT
GAGGTGGCCTCCTTGAACCGTAGCATCCACCTGGTTGAAGAAGAGCTGGACCGTGCTCAG
GAGCGCCTGGCCACTGCCCTGCAAAAGCTCGAAGAAGCTGAAAAAGCTGCTGATCAGAGT
GAGAGAGGTATGAAGGTTATTGAAAACCGGGCCTTAAAAGATGAAGAAAAGATGGAAGT
CCAGGAAAATCCAATCAAGAAGCTAACCAATTGCAGAAGAGGCAGATAGGAAGTATG
AAGAGGTGGCTCGTAAGTTGGTGCATGTAAGGAGACTTGAACGCACAGAGGAACGAG
CTGAGCTGGCAGAGTCCCGTTGCCGAGAGATGGATGAGCAGATTAGACTGATGGACCAGA
ACCTGAAGTGTCTGAGTGC

FIG. 15G

11782.1.contig

ATCTACGTCATCAATCAGGCTGGAGACACCATGTTCAATCGAGCTAAGCTGCTCAATATTG
GCTTTCAAGAGGCCTTGAAGGACTATGATTACAACCTGCTTTGTGTTCAAGTGTGGACCT
CATTCCGATGGACGACCGTAATGCCTACAGGTGTTTTTCGCAGCCACGGCACATTTCTGTT
GCAATGGACAAGTTTCGGGTTTAGCCTGCCATATGTTCAAGTATTTGGAGGTGTCTCTGCTCT
CAGTAAACAACAGTTTCTTGCCATCAATGGATTCCCTAATAATTATTGGGGTTGGGGAGGA
GAAGATGACGACATTTTTAACAGATTAGTTCATAAAGGCATGTCTATATCACGTCCAAATG
CTGTAGTAGGGAGGTGTGCAATGATCCGGCATTCAAGAGACAAGAAAAATGAGCCCAATC
CTCAGAGGTTTGACCGGATCGCACATACAAAGGAAACGATGCGCTTCGATGGTTTGAAC
CACTTACCTACAAGGTGTTGGATGTCAGAGATACCCGTTATATACCCAAATCAC

11782.2.contig

CTAGACCTCTAATTAAAAGGCCACAATCATGCTGGAGAATGAACAGTCTGACCCCGAGGGC
CACAGCGAATTTTAGGGAAGGAGCCAAAGAGGTGAGAAGGGAAAGGAAAGGAAGG
AAGGAGAACAATAAGAACTGGAGACGTTGGGTGGGTGAGGGAGTGTGGTGGAGGCTCGG
AGAGATGGTAAACAACCTGACTGCTATGAGTTTTCAACCCCATAGTCTAGGGCCATGAG
GGCGTCAGTTCTTGGTGGCTGAGGGTCTTCCACCCAGCCCACCTGGGGGAGTGGAGTGG
GGAGTTCTGCCAGGTAAGCAGATGTTGTCTCCCAAGTTCTGACCCAGATGTCTGGCAGGA
TAACGCTGACCTGTTCCCTCAACAAGGGACCTGAAAGTAATTTTGCTCTTTAC

11783-1 & 2

CCGAATTCAAGCGTCAACGATCCCTCCCTTACCATCAAATCAATTGGCCACCAATGGTACT
GAACCTACGAGTACACCGACTAC₂GGCGGACTAATCTTCAACTCCTACATACTTCCCCCAT
TATTCCTAGAACCAGGCGACCTGCGACTCCTTGACGTTGACAATCGAGTAGTACTCCCGAT
TGAAGCCCCCATTCGTATAATAATACATCAACAAGACGCTTGGCACTCATGAGCTGTCCCC
ACATTAGGCTTAAAAACAGATGCCAATCCCGGACGTCTAAGCCAAACCACTTTACCGCTA
CAGGACCGGGGGTATACTACCGTCAATGCTCTGAAATCTGTGGAGCAAAACCACAGTTTCAT
GCCCATCGTCTAGAAATTAATCCCGTAAAAATCTTTGAAATAGGGCCCCGTATTTACCCTA
TAGCACCCCTCTACCCCTCTAG

11786.1.contig

GCTCTTACACTTTTATTGTTAAATCTCTTCACATGGCAGATACAGAGCTGTGCTCTTGAAG
ACCACTACTGACCAGGAAATGCCACTTTTACAAAATCATCCCCCTTTTCATGATTGGAAC
AGTTTTCCTGACCGTCTCGGAGCGTTGAAGGCTGACCAGCACATTTGCACATGCCAAAAA
GGAGTGACCCCAAGGCCTCAACCACTTCCAGAGCTCACCATGGGCTGCAGGTGACTT
GCCAGGTTTGGGGTTCGTGAGCTTTCTTCTGCTGCGGTGGGGAGGCCCTCAAGAACTGA
GAGGCCGGGGTATGCTTCATGAGTGTAAATACGGGACAAAAGCGCATCATTAGGAT
AAGCAACAGCCACAGCACTTCATGCTTGTGAGGGTTAGCTGTAGGAGCGGGTGAAAGGAT
TCAGTTTATGAAAATTTAAAGCAAAACCGGTTTATGCTGGGTGGGAAACAGGAAAAC
TGTGATGTGGCCAATGACCACCAATTTCTGCCCATGTGAAGGTCCCCATGAAACC

FIG. 15H

000T80" F089E960

11786.2.contig

CAAGCGCTTGGCGTTTGGACCCAGTTCAGTGAGGTTCTTGGGTTTTGTGCCTTTGGGGATTT
TGGTTTGACCCAGGGGTCAAGCCTTAGGAAGGTCTTCAGGAGGAGGCCGAGTTCCCTTCAG
TACCACCCCTCTCTCCCCACTTTCCCTCTCCCGGCAACATCTCTGGGAATCAACAGCATATT
GACACGTTGGAGCCGAGCCTGAACATGCCCTCGGCCCCAGCACATGGAAAACCCCTTC
CTTGCTAAGGTGTCTGAGTTTCTGGCTCTTGAGGCAATTCAGACTTGAAAATTCTCATCAG
TCCATTGCTCTTGAGTCTTTGCAGAGAACCTCAGATCAGGTGCACCTGGGAGAAAGACTTT
GTCCCCACTTACAGATCTATCTCTCCCTTGGGAAGGGCAGGGAATGGGGACGGTGTATGG
AGGGGAAGGGATCTCTCGGCCCTTCATTGCCACACTTGGTGGGACCATGAACATCTTTAG
TGCTGAGCTTCTCAAATTACTGCAATAGGA

13691.1&2

AGCGTCAAATCAGAATGGAAAAGACTCAAATCCATCATCAACACCAAGATCAAAAAGGAC
AAGRATCCTTCAAGAAACAGGAAAAAATCTCTAAACACCAAAAGGACCTAGTTCTGTAG
AAGACATTAAAGCAAAAAATGCAAGCAAGTATAGAAAAAGGTGGTTCTTCCCAAAGTGG
AAGCCAAATTCATCAATTATGTGAAGAAATGCTTCCGGATGACTGACCAAGAGGCTATTCA
AGATCTCTGGCAGTGGAGGAAGTCTCTTAAAGAAAATAGTTTAAACAAATTTGTTAAAAAT
TTCCGTCTTATTTCAATTTCTGTAAACAGTGATATCTGGCTGTCCTTTTTATAATGCAGAGT
GAGAACTTCCCTACCGTGTGTTGATAAAATGTTGTCCAGGTTCTATTGCCAAGAATGTGTTGT
CCAAAATGCCCTGTTTAGTTTTAAAGATCGAACTCCACCCTTTGCTTGGTTTTAAGTATGTA
TGGAAATGTTATGATAGGACATAGTAGCCGGTGGTCAGACATGGAAATGGTGGGSMGAC
AAAAATATACATGTGAAATAA

13692.1&2

TCCGAATTCCAAGCGAATTAATGGACAAACGATTCCTTTTAGAGGATTACTTTTTCAATTC
GGTTTTAGTAATCTAGGCTTTCCCTGTAAGCAATACACGATGGATTTTAAATACTGTTTG
TGGAAATGTGTTTAAAGGATTTGATCTACAACCTTTGTATTTGATAGTATTTCTAACTTTC
ATTTCTTTACTGTTTGCAGTTAATGTTCAATCTGCTATGCAATCGTTTATATGCACGTTTC
TTTAAATTTTTTAGATTTTCTGGATGTATAGTTTAAACAACAAAAGTCTATTTAAAAGTCTG
TAGCAGTAGTTTACAGTTCTAGCAAAACAGGAAAGTTGTGGGGTTAAACTTTGTATTTCTT
TCTTATAGAGGCTTCTAAAAGGTAATTTATATGTTCTTTTAAACAAATATTGTGTACAAC
CTTTAAACATCAATGTTTGGATCAAAACAAGACCCAGCTTATTTTCTGC

13693.2

TGTGCTGGCCGCGGCTGAGGTGGAGGCCCCAGGACTCTGACCCCTGCCCTTCAGCAA
GGCCCCCGGCAGCGCGGCGGCACTACGAACCTCCGTTGGGTTGAAAAATATAGGCCAGTAAA
GCTGAATGAAATTGTGGGAATGAAGACACCGTGAGCAGGCTAGAGGTCTTTGCCAAGGGA
AGGAAATGTGCCCAACATCATCATTCGCGGCGCTCCAGGAACCGGCAAGACCACAAGCAT
TCTGTGCTTGGCCCGGCGGCTGCTGGGCCCCAGCACTCAAAGATGCCATGTTGGAACCTCAAT
GCTTCAAATGACACGGGCAATTGACGTTGTGACGAATAAAATTTAAATGTTTGTCAACAA
AAAGTCACTCTTCCCAAAGCCCGACATAAGATCATCATCTTGGATGAAGCAGACAGCATG
ACCGACGGAGCCCCAGCAAGCCTTGAGGAGAACCATGGAAATCTACTCTAAAACCACTCGT
TCGCCCTTGTGTTGTAATGCTTCGGATAAGATCATCGAGCC

FIG. 15I

13696.1-13744.1

CTTTGCAAAGCTTTTATTTTCATGTCTGCGGCATGGAATCCACCTGCACATGGCATCTTAGCT
GTGAAGGAGAAAGCAGTCCACGAGAAGGAATGAGTGGGCGGAACCAACGGCCTCCACAA
GCTGCCTTCCAGCAGCCTGCCAAGGCCATGGCAGAGAGAGACTGCAAACAAACACAAGCA
AACAGAGTCTCTTCACAGCTGGAGTCTGAAAGCTCATAGTGGCATGTGTGAATCTGACAA
AATTAAAAGTGTGCATAGTCCATTACATGCATAAAACACTAATAATCCTGTTTACACG
TGACTGCAGCAGGCAGGTCCAGCTCCACCCTGCCCCCTGCCCACATCACATCAAGTGCCA
TGGTTTAGAGGGTTTTTTCATATGTAAATCTTTTATTCTGTAAAAGGTAACAAAATATACAG
AACAAAACCTTCCCTTTTTTAAACTAATGTTACAAATCTGTATTATCACTTGGATATAAAT
AGTATATAAGCTGATC

13700.1

CAAGGGATATATGTTGAGGGTACRGRGTGA⁵ACTGAACAGATCACAAAGCAGGAGAAACA
TTAGTTCTCTCCCTCCCCAGCGTCTCCTTCGTCTCCCTGGTTTTCCGATGTCCACAGAGTGA
GATTGTCCCTAAGTAACTGCATGATCAGAGTGTGKCTTTATAAGACTCTTCATTACAGCGT
ATCCAATTCAGCAATTGCTTCATCAAATGCCGTTTTTGCCAGGCTACAGGCCTTTTCAGGA
GAGTTTAGAATCTCATAGTAAAAGACTGAGAAATTTAGTGCCAGACCAAGACGAATTGGG
TGTGTAGGCTGCATTNCTTTCTTACTAAATTTCAAATGCTTCTGGTAAGCCTGCTGGGAGTT
CGACACAAGTGGTTTTGTTTGTCTCCAGATGCCACTTCAGAAAGATACCTAAAATAATCT
CCTTTCATTTTCAAAGTAGAACAC

13700.2

TCCGGAGCCGGGGTAGTCCGCCCGCGCGCGCGGGTGCAGCCACTGCAGGCACCGCTGCC
GCGGCCTGAGTAGTGGGCTTAGGAAGGAAGAGGTCACTCGCTCGGAGCTTCGCTCGGAA
GGGTCTTTGTTCCCTGCCAGCCCTCCCAAGGGAATGACAATGGATAAAAGTGAGCTGGTACA
GAAAGCCAAACTCGCTGAGCAGGCTGACCGATATGATGATATGGCTGCAGCCATGAAGGC
AGTCACAGAACAGGGGCAATGAATCTCCAAGCAAGAGAGAAATCTGCTCTCTGTTGCCTA
CAAGAATGTGGTAAGGCGCGCGCGCGCTTCTCGCGGTGTCACTCCAGCATTGAGCAGA
AAACAGAGAGCAATGAGAAGAAGCAGCAGATGGCCAAAGAGTACCGTGAGAAGATAGA
GGCAGAACTCCAGGACATCTCCAATGATGTTCTGGAGCTTGTGGACAAATATCTTATTCC
AATGCTACACAACCCAGAAA

13701.1

AAAAAGCAGCARGTTCAACACAAAATAGAAATCTCAAATGTAGGATAGAAACAAAACCAA
GTGTGTGAGCGGGGGAAGCAACAGCAAAAGGAAGCAATGAGATGTTGCAAAAAAGATGGA
GGAGGGTTCCCTCTCCTCTCGGGACTGACTCAAACACTGATGTGGCAGTATACACCATTC
CAGAGTCAGGGGTGTTCAATCTTTTGGGACTAAGAAAAGGTGGGGATTAGAAGACGT
TTCTGGAGGCTTAGGGACCAAGCCCTGGTCTCTTCCCCCTCCCAACCCCTTGAATCCCTTT
CTCTGATCAGCGGAAAGGAGCTCGAATGAGGCAGGTAGAGTTGGAAAGGGAAGGATTTC
CACTTGACAGAATGGGACAGACTCCTTCCCA

FIG. 15J

13701.2

TGGCAATAGCACAGCCATCCAGGAGCTCTTCARGCGCATCTCGGAGCAGTTCACTGCCATG
TTCCGCCGGAAGGCCTTCCTCCACTGGTACACAGGCGAGGGCATGGACGAGATGGAGTTC
ACCGAGGCTGAGAGCAACATGAACGACCTCGTCTCTGAGTATCAAGCAGTACCAGGATGC
CACCGCAGAAGAGGAGGAGGATTTCGGTGAGGAGGCCGAAGAGGAGGCCTAAGGCAGAG
CCCCATCACCTCAGGCTTCTCAGTCCCTTAGCCGTCTTACTCAACTGCCCTTTCTCTCC
CTCAGAATTTGTGTTTGTGCTGCCTCTATCTGTTTTTGTCTTCTTCTGGGGGGGTCTAGAA
CAGTGCTGGCACATAGTAGGCGCTCAATAAATACTTGTTGNTGAATGTCTCCT

13702.2

AGCTGGCGCTAGGGCTCGGTTGTGAAATACAGCGTRGTCAGCCCTTGCGCTCAGTGTAGAA
ACCCACGCCTGTAAGGTTCGGTCTTCGTCCATCTGCTTTTTTCTGAAATACACTAAGAGCAG
CCACAAAATGTAACCTCAAGGAAACCATAAAGCTTGGAGTGCCTTAATTTTTAACCAGTT
TCCAATAAAACGGTTTACTACCT

13704.2-13740.2

GGAGATGAAGATGAGGAAGCTGAGTCAGCTACGGGCARGCGGGCAGCTGAAGATGATGA
GGATGACGATGTCGATACCAAGCAAGCAGAAAGACCGACGAGGATGACTAGACAGCAAAAA
AGGAAAAGTTAAA

13706.1

GATGAAAATTAAATACTTAAATTAATCAAAAAGGCACTACGATACCACCTAAAACCTACTG
CCTCAGTGGCAGTAKGCTAAKGAACATCAAGCTACAGSACATYATCTAATATGAATGTTA
GCAATTACATAKARGAAGCATGTTTCCTTTCCAGAAGACTATGGNACAATGGTCATTWG
GGCCCAAGAGGATATTTGGCCNCGAAAGCATCAAGATAGATNAANGTAAAG

13706.2

GAGTAGCAACGCAAAAGCGCTTGGTATTGAGTCTGTGGGSGACTTCGGTTCCGGTCTCTGCA
GCAGCCGTGATCGCTTAGTGGAGTGCTTAGGGTAGTTGGCCAGGATGCCGAATATCAAAA
TCTTCAGCAGGCAGTCCCACCAGACTTATCTCASAATAATGCTGACCGCCTGGGCCTGG
AGCTAGGCAAGGTGGTGACTAAGAAATTCAGCAACCAGGAGACCTGTGTGGAAATTGGTG
AAAGTGTACCGTGGAGAGGATGTCTACATTGTTTCAGAGTGGNTGTGGCGAATCAATGAC
AATTTAATGGAGCTTTTGATCATGATTAATGCCTGCAAGATTGCTTCAGCCAGCCGGGTTA
CTGCAGTCATCCCATGCTTCCCTTATGCCCCGGCAGGATAAGAAAAGATNAGAGCCGGGCC
GCCAATCTCAGCCAAGCTTGGTGCAAAATATGCTATCTGTAGCAGTGCAGATCATATTATCA
CGATGGACCTACATGCTTCTCAAATTCANGGCTTTT

FIG. 15K

13707.3

ATGCAAAAAGGGGACACAGGGGGTTCAAAAATAAAAAATTTCTTTCCCCCTCCCCAAACCT
GTACCCAGCTCCCCGACCAC.AACCCCTTCTCCCCGGGAAAGCAAGAAGGAGCAGG
TGTGGCATCTGCAGCTGGGAAGAGAGACGCCGGGGAGGTGCCGAGCTCGGTGCTGGTCTC
TTTCAAATATAAAATACGTGTGTGCAAACTGGAATACTCTCCAGCACCCACCACCAAGCA
CTCTCCGTTTTCTGCCGGTGTGTTGGAGAGGGGGCGNGGGCAGGGGGCGCCAGGCACCGGT
GGCTGCGGTCTACTGCATCCGCTGGGTGTGCACCCCGCGA

13710.2

AGGTTGGAGAAGGTCAATGCAGGTGCAGATTGTCCAGGSKCAGCCACAGGGTCAAGCCCAA
CAGGCCCAGAGTGGCACTGGACAGACCATGCAGGTGATGCAGCAGATCATCACTAACACA
GGAGAGATCCAGCAGATCCCCGGTGCAGCTGAATGCCGGCCAGCTGCAGTATATCCGCTTA
GCCCAGCCTGTATCAGGCACTCAAGTTGTGCAGGGACAGATCCAGACACTTGGCCACCAAT
GCTCAACAGATTACACAGACAGAGGTCCAGCAAGGACAGCAGCAGTTCAAGCCAGTTTAC
AAGATGGACAGCAGCTCTACCAGATCCAGCAAGTCACCATGCCTGCGGGCCANGACCTCG
CCAGCCCATGTTTATCCAGTCAAGCCAACCAGCCCTTCNACGGGCAGGCCCCCAGGTGAC
CGGCGACTGAAGGGCCTGACCTGGCAAGGCCAANGACACCCAACAC.AATTTTTGCCATAC
AGCCCCCAGGCAATGGGCAACACCTTTCTTCCAGAGGAC

13710-1

TGAGATTTATTCCATTTTCATCCAGCTTGAAGTCCATGCCAAGGRCAGTACACAGTTTTTA
ATGCATTTAAAAAATAAAACGGAGGTGGGAGCAAAACACACAAAGTCTAGTTTCTGGG
TCCCTGGGAGAAAAGAGTGTGGCAATCAATCCACCCACTCTCCACAGGAATAAAATCTGT
CTCTTAAATGCAAGAATGTTTCCATGCGCTCTGGATGCCAAATACACAGAGCTCTGGGGTC
AGAGCAAGGGATGGGAGAGGACCAGTGAAGGAGCAGCTACACACATTCACCTAAT
TCCATCTGAGGGCAAGCAACAGTGGCAAGTCTTGGGGTAGCAGCTGT

13711.1

TCCAGACATGCTCCTGTCTAGGGGGGACCAGGAACCAGACCTGCTATGGGAAGCAGAA
AGAGTTAAGCGAAAGGTTTCTTTCATTCCTGTTCCTTCTTTTGTCTTTGAACAGTTTTTA
AATACTAATAGCTAAGTCAATTCAGGAGGAGGTCCCGTGAACAGTAGAGAACAAGGA
GCTTGCTAAGAAATTAATTTTCTGT.TTTTACCCCAATCAACAGACCTGCCCTGTTCCCTG
ATGGAGTTCCATTCCTGCCAGGGCAGGGCTGAGTAACAGGAAGCCATTCAAGAAAGCGG
GTGTGAATCACTGCCACCCCATGGACAGACCCCTCACTCTTCTTCTTAGCCGCAGCGCT
ACTTAATAAATATAATTAATCTTGAATATGATAACCGATTTTCCATGCCGGCATCTTA
AGGGCACTTGCCAGCTCTTAATCCGGACACTCAAGCACTGTGTGGACAACAGATAAAGG
AAAAGAAAAAGAAAGAAAAC.AACCGCAACTTCTGT

FIG. 15L

00626801-081000

13711.2

TGAGACGGACCACTGGCCTGGTCCCCCTCATKTGCTGTCGTAGGACCTGACATGAAACGC
AGATCTAGTGGCAGAGAGGAAGATGAGGAACCTTCTGAGACGTGGCAGCTTCAAGAA
GAGCAATTAATGAAGCTTAACCTCAGGCCTGGGACAGTTGATCTTGAAAGAAGAGATGGAG
AAAGAGAGCCGGGAAAGGTCACTCTGTTAGCCAGTCGCTACGATTCTCCCATCAACTCAG
CTTCACATATTCATCATCTAAAACCTGCACTCTCCCTGGCTATGGAAGAAATGGGCTTCA
CCGGCCTGTTTCTACCGACTTCGCTCAGTATAACAGCTATGGGGATGTCAGCGGGGGAGTG
CGAGATTACCAGACACTTCCAGATGGCCACATGCCTGCAATGAGAATGGACCGAGGAGTG
TCTATGCCCCAACATGTTGGAACCAAAGATATTTCCATATGAAATGCTCATGGTGACCAACA
GAGGGCCGAAACCAAATCTCAGAGAGGTGGACAGAA

13713.1&2

TCACCTTATTTTTCTTGTATAAAAAACCCTATGTTGTAGCCACAGCTGGAGCCTGAGTCCGCT
GCACGGAGACTCTGGTGTGGGTCTTGACGAGGTGGTCAGTGAACCTCTGATAGGGAGACT
TGGTGAATACAGTCTCCTTCCAGAGGTGGGGGGTCAGGTAGCTGTAGGTCTTAGAAATGGC
ATCAAAGGTGGCCTTGGCGAAGTTGCCACGGGTGGCAGTGCAGCCCCGGGCTGAGGTGTA
GCAGTCATCGATACCAGCCATCATGAG

13715.4

CTGGAATATAGACCCGTGATCGACAAAACCTTGAACGAGGGCTGACTGTGCCACCGTCCCGC
CAGCCATTGCTCCTACTGATGAGACAAGATGTGGTGATGACAGAATCAGCTTTGTAAAT
ATGTATAATACCTCATGCCATGTGTCCAATGCACTGCTTTCATACCGTTCTGCACTCTGG
GGAAGAAGGAGTACATTGAACGGAGATTGGCACCTAGTGGCTGGGAGCTTGGCAGGAACC
CAGTGGCCAGGGAGCGTGGCACTTACCTTGTCCCTTGTCTTCACTTGTGTGAGATGATAAA
ACTGGGCACAGCTCTTAAATAAAATATAAATGAACA

13717.1&2

TGAATGGGGACGAGCTGACCCAGGAAATGCAGCTTGNCGAGACCAGGCCTGCAGGGGAT
GGAACCTTCCAGAAGTGGGCACTGTGGTGGTGGCTCTTGGGAAGGAGCAGAAGTACACA
TGCCATGTGGAACATGAGGGGCTGGCTGAGCCCCCTCACCTGAGATGGGGCAAGGAGGAG
CCTCCTTCATCCACCAAGACTAACACAGTAATCAATTGCTGTTCCGGTTGTCTTGGAGCTGT
GGTCATCCTTGGAGCTGTGATGGCTTTGTGATGAAGAGGAGGAGAAACACAGGTGGAAA
AGGAGGGGACTATGCTCTGGCTCCAGGCTCCAGAGCTCTGATATGTCTCTCCAGATTGT
AAAGTGTGAAGACAGCTGCTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGT
TGTGACATCCAGAGACCTCAGTCTCTTACTCAAGTGTCTGATGTTCCCTGTGAGTCTCGG
GGCTCAAAGTGAAGAAGTGTGGAGGCCAGTCCACCCCTGCCACACCAGGACCCCTATCCCTG
CACTGCCCTGTGTTCCCTTCCACAGCCAACTTGTCTGCTCCAGCCAAACATTGGTGGACAT
CTGCAGCCTGTGAGCTCCATGCTACCCCTGACCTTCAACTCCTCACTTCCACACTGAGAATA
ATAATTTGAATGTGGTGGCTGGAGAGATGGCTCAGCGCTGACTGCTCTTCCAAAGGTCT
GAGTTCAAATCCCAGCAACCACATGGTGGCTCACAAACCATCTGTAATGGGATCTAATACCC
TCTTCTGCACTGTCTGAAGACASCTACAGTGTACTTACATATAATAATAAATAAG

FIG. 15M

09636301-081000

13719.1&2

GGCCGGGCGCGCGCGCCCCGCCACACGCACGCCGGGCGTGCCAGTTTATAAAGGGAGAG
AGCAAGCAGCGAGTCTTGAAGCTCTGTTTGGTGCTTTGGATCCATTTCCATCGGTCTTAC
AGCCGCTCGTCAGACTCCAGCAGCCAAGATGGTGAAGCAGATCGAGAGCAAGACTGCTTT
TCAGGAAGCCTTGGACGCTGCAGGTGATAAACTTGTAGTAGTTGACTTCTCAGCCAGTGG
TGTGGGCTTGC AAAATGATCAAGCCTTTCTTTCATTCCCTCTCTGAAAAGTATTC AACGT
GATATTCCTTGAAGTAGATGTGGATGACTGTCAGGATGTTGCTTCAGAGTGTGAAGTCAAA
TGCATGCCAACATTCAGTTTTTTAAGAAGGGACAAAAGGTGGGTGAATTTTCTGGAGCCA
ATAAGGAAAAGCTTGAAGCCACCATTAATGAATTAGTCTAATCATGTTTTCTGAAAATATA
ACCAGCCATTGGCTATTTAAAACTTGTAATTTTTTAAATTTACAAAAATATAAAATATGAA
GACATAAACCCMGTTCGCATCTGCGTGACAAATAAACATTAATGCTAACACTT

13721.1

TCACATAAGAAATTTAAGCAAGTTACRCTATCTTAAAAAACACAACGAATGCATTTTAATA
GAGAAACCTTCCCTCCCTCCACCTCCCTCCCCACCCTCCTCATGAATTAAGAATCTAAG
AGAAGAAGTAACCATAAAACCAAGTTTGTGGAATCCATCATCCAGAGTGCTTACATGGT
GATTAGGTTAATAATGCTTCTTACAAAATTTCTATTTTAAAAAAATTATAACCTTGATTG
CTTATTACAAAAAAATTCAGTACAAAAGTTCAATATATTGAAAAATGCTTTTCCCTCCCT
CACAGCACCGTTTTATATATAGCAGAGAATAATGAAGAGATTGCTAGTCTAGATGGGGCA
ATCTTCAAATTACACCAAGACGCACAGTGGTTTATTTACCCTCCCTTCTCAT.AAG

13721.2

GGAAAGGATTCAAGAATTAGAGGACTTGGTGGCTRRAGAAAAAGACAACCTCTCGTGGCAT
GCTGACAGACAAAGAGAGAGAGATGGCGGAAATAAGGGATCAATGCCAGCAACAGCTGA
ATGACTATGAACAGCTTCTTGATGTAAAGTTAGCCCTGGACATGGAAATCAGTGCTTACAG
GAAACTCTTAGAAGGCCAAGCAAGAGAGCTTGAAGCTGTCTCCAAAGCCCTTCTTCCCGTGT
GACAGTATCCCGAGCATCCTCAAGTCTGTAGTGTACCGTACAACCTAGAGGAAAGCGGAAGA
GGGTTGATGTGGAAGAATCAGAGCCGAAAGTAGTGTAGTGTAGCATCTCTCATTCGGCTCAA
CCACTGGAAATGTTTGCATCGAAGAAATGATGTTGATGGGAAATTTATCCCGCTTGAAGA
ACACTTCTGAACAGGATCAACCAATGGGAAGCGCTTGGGAGATGATCAGAAAAATTGGAGA
CACATCAGTCAGTTATAAAATATACCTCAA

13723.1

CATGGCTTTCACCAGGTTGGCCAGGCTGCTCTTGAACSTCTGACCTCAGGTGATCCACCCG
CCTCGGCCTCCCAAAGTGCTGGGATTACAGGCGTGAGCCACCACGCCCGGCCCAAGC
TGTTTCTTTTGTCTTAGCGTAAAGCTCTCTGCCATGCAGTATCTACATAACTGACGTGAC
TGCCAGCAAGCTCAGTCACTCCGTCCTCTTCTCTTCCAGTTCTTCTCTCTCTTCAAG
TTCTGCCTCAGTGAAGCTGCCAGGTCCCAAGTTAAGTGATCAGGTGAGGGTTCTTCAACC
TGGTCTATCAGTCGAATTAATCCTTCATGATGG

FIG. 15N

00636801.081000

13723.2

GATGTGTTGGACCCTCTGTGTC.AAAAAAACCTCACAAGAATCCCCTGCTCATTACAGAA
GAAGATGCATTTAAAAATATGGGTTATTTTCAACTTTTTATCTGAGGACAAGTATCCATTAA
TTATTGTGT.CAGAAGAGATTGAATACCTGCTTAAGAAGCTTACAGAAGCTATGGGAGGAG
GTTGGCAGCAAGAACAATTTGAACATTATAAAATCAACTTTGATGACAGTAAAAATGGCC
TTTCTGCATGGGAACCTTATTGAGCTTATTGGAAATGGACAGTTTAGCAAAGGCATGGACCG
GCAGACTGTGTCTATGGCAATTAATGAAGTCTTTAATGAAGTTATATTAGATGTGTTAAAG
CAGGGTTACATGATGAAAAAGGCCACAGACGGAAAACTGGACTGAAAGATGGTTTGTA
CTAAAACCCAACATAATTTCTTACTATGTGAGTGAGGATCTGAAGGATAAGAAAGGAGAC
ATTCTCTTGGATGAAAAATTGCTGTGT.AGAAGTCCTTGCCTGACAAAAGATGGAAAGAAAT
GCCTTTT

13725.1

GACTGGTTCCTTTATTTCAAAAAGACACTTGTAAATATTCAGTRTCAAAACAGTTGCACTATT
GATTTCTCTTTCTCCCAATCGGCCCAAGAGACCACATAAAAGGAGAGTACATTTTAAGC
CAATAAGCTGCAGGATGTACACCTAACAGACCTCCTAGAAACCTTACCAGAAAAATGGGGA
CTGGGTAGGGAAGGAAACTTAAAGATCAACAAACTGCCAGCCACGGACTGCAGAGGCT
GTCACAGCCAGATGGGGTGGCCAGGGTGGCACAAACCCAAAGCAAGTTTCAAAATAATA
TAAATTTAAAAAGTTTGTACATAAGCTATTCAAGATTTCTCCAGCACTGACTGATACAA
AGCACAATTGAGATGGCACTTCTAGAGACAGCAGCTTCAAACCCAGAAAAAGGGTGATGAG
ATGAAGTTTCACATGGCTAAATCAGTGGCAAAAAACACAGTCTTCTTTCTTTCTTTCAA
GGANGCAGGAAGCAATTAAGTGGTCACTTAACATAAGGGGGAC

13725.2

TGGGTGGCCACCATGGCTGGGATCACCACCATGGAGGGGGTGAAGCCCAAGATCCAGGTT
CTGCAGCAGCAGGCAGATGATGCAGAGGAGCGAGCTGAGCGCCTCCAGCGAGAAGTTGA
GGGAGAAAGCCGGGCGGCGGGAACAGGCTGAGGCTGAGGTTGCCCTCCTTGAACCGTAGGA
TCCAGCTGCTTGAAGAAGAGCTGGACCGTGGCTCAGGAGCGCCTGGCCACTGCCCTGCCAA
AGCTGGAAGAAGCTGAAAAAGCTGCTGATGAGAGTGAGAGAGGTATGAAGGTTATTGAA
AACC GGCCCTTAAAGATCAAGAAAAAGATGCAACTCCAGGAATCCAACCTCAAAGAAGC
TAAGCACATTGCAAGAGCCGAGATAGGAAGTATGAAGAGGTGGCTCGTAAGTTGGTGTAT
CATGGAAGGAGACTTGGAAACCGCACAGAACCAACGAGCTTGAGCTTGGCAAAAGTCCCGT
TGCCACAGATGGGATGAACCAGATTAGACTGATGGACCANAACC

13726.1&2

AGGGGCGNCGGGTGGCTGGGCGCACTGGGTGACCGACTTAGCCTGGCCAGACTCTCAGCAC
CTGGAAGCGCCCGAGAGTGACAGCGTGAGGCTGGGAGGGAGGACTTGGCTTGAGCTTGT
TAAACTCTGCTCTGAGGCTCCTTGTGGCTGCAATTTAGATGGCTCCCGCAAAGAAGGGTGG
CGAGAAGAAAAAGGGCGGTTCTGCCATCAACGAAGTGGTAACCCGAGAATACACCATCAA
CAATTCACAAGCGCATCCATGGAGTGGCTTCAAGAAGCGTGCACCTCGGGCACTCAAAGA
GATTCGGAAATTTGCCATGAAGGAGATGGGAACCTCCAGATGTGCGCATTGACACCAGGCT
CAACAAAGCTGTCTGGGCCAAAGCAATTAAGGAATGTGCCATACCGAATCCGGTGTGGGGC
TGTCCAGAAAACGTAAATGACGATGAAGATTCACCAAAATAAGCTATATACTTTGGTTACCTA
TGTACCTGTATACCACTTTCAAAAAATCTACAGACAGTCAATGTGGATGAGAACTAATCGCTG
ATCGTCAGATCAAAATAAAGTTATAAAAT

FIG. 150

13727.1

TCGGGAGCCACACTTGGCCCTCTTCTCTCCAAAGSGCCAGAACCTCCTTCTCTTTGGAGAA
TGGGGAGGCCTCTTGGAGACACAGAGGGTTTCACCTTGGATGACCTCTAGAGAAATTGCC
CAAGAAGCCCCACCTTCTGGTCCCAACCTGCAGACCCACAGCAGTCAGTTGGTCAGGCCCT
GCTGTAGAAGGTCACTTGGCTCCATTGCCTGCTTCCAACCAATGGGCAGGAGAGAAGGCC
TTTATTTCTCGCCACCCATTCTCTGTACCAGCACCTCCGTTTTAGTCAGTGTTGTCCA
GCAACGGTACCGTTTACACAGTCACCTCAGACACACCATTTACCTCCCTTGCCAAGCTGT
TAGCCTTAGAGTGATTGCACTGAACACTGTTTACACACCGTGAATCCATTCCCATCAGTCC
ATTCCAGTTGGCACCAGCCTGAACCATTTGGTACCTGGTGTTAACTGGAGTCCTGTTTACA
AGGTGGAGTCGGGGCTTGCTGACTTCTCTTCAATTTGAGGGCAC

13727.2

ACCTAGACAGAAGGTGGGTGAGGGAGGACTGGTAGGAGGCTGAGGCAATTCCTTGGTAGT
TTGTCTGAAACCTACTGGAGAAGTCAGCATGAGGCACCTACTGAGAGAAGTGCCGAGA
AACTGCTGACTGCATCTGTTAAGAGTTAAGAGTAAAGAGGTAGAAGTGTTTCTGAATCA
GAGTGGAAAGCGTCTCAAGGGTCCCAAGTGGAGGTCCCTGAGCTACCTCCCTTCCGTGAGT
GGGAAGAGTGAAGCCCATGAAGAAGTGAAGCAAGGATGGGGTTCTGGGCTCCA
GGCAAGGGCTGTGCTCTCTGCAAGCAGGGACCCACGAGTCAGAAGAAAAGAACTAATCA
TTGTGTGCAAGAAACCTTGCCCGGATACTAGCGGAAAAGTGGAGGCGGNGGTGGGGGCAC
AGGAAAGTGGAAGTGATTGATGGAGAGCAGAGAAGCCTATGCACAGTGGCCGAGTCCAC
TTGTAAGTG

13728.1&2

TTCAAGCAATTGTAACAAGTATATGTAGATTAGAGTGAGCAAAATCATATACAATTTTCAT
TTCCAGTTGCTATTTTCCAAATTTGTTCTGTAATGTCTGTTAAAATTACTTAAAAATTAAACAAA
GCCAAAAATTATTTATGACAAGAAAGCCATCCCTACATTAATCTTACTTTTCCACTCAC
CGCCCCATCTCTCTCTCTTTTCTTAAGTATGCCATTAAAAGTGTCTACTGGGGCCGGGGC
TGTGGCTCATGGCTGTAAATCCACCAATTTGGCAGGCCAAGGCAGCGCGATCATGAGGTC
AAGAGATTGAGACCATCTCTGGCCAAATGCTGAAACCCCGCTCGACTAAGAATACAAAA
ATTAGCTCGGCATGGTGGCCCATGCTGTAGTCTCAGCTACTCGGGAGGCTGAGGCAGAA
GAATCGCTTGAACCCGGGAGGCAGAGGATGCAAGTGAAGCCCCGATCGCGCCACTCCACTCT
AGCCTGGCGGACAGACTGAGACTCTGCTC

13731.1&2

TGTGCCAGTCTACAGCCCTATCAGCAGCGACTCCTTCAGCAACAGATGGGGTCCCTGTTT
AGCCCAACCCCATGAGCCCCCAGCAGCATATGCTCCCAATCAGGCCAGTCCCCACACCT
ACAAGGCCAGCAGATCCCTAATTTCTCTCTCCAATCAAGTGCGCTCTCCCCAGCCTGTCCCTT
CTCCACGGCCACAGTCCCAGCCCCCCCCACTCCAGTCTCTCCCCAAGGATGCAGCCTCAGCC
TTCTCCACACCACGTTTCCCCACAGACAAGTTCCCCACATCTGGACTGGTAGTTGCCAG
GQCAACCCCATGGAACAAGGGCATTTTCCAGCC

FIG. 15P

000T80" 1089E960

13736.2

13-44.2-13696.2

13746.1&2-13720.1&2

FIG. 150

14347.1

CAGATTTTATTTCAGTCGTCAGTGGGCGGTTTCTTGCTGCTTATTTGTCTGCTAGCCTG
CTCTTCCAGCTGCCATGGCCAGGCGCAAGGCCTTGATGACATCTCGCAGGGCTGAGAAATGC
TTGGCTTGCTGGGCCAGAGCAGATTCCGCTTTGTTTACAAAGGTCTCCAGGTCATAGTCTG
GCTGCTCGGTATCTCAGAGAGCTCAAGCCAGTCTGGTCTTGGCTGTATGATCTCTTGGAG
CTCTTCCATAGCCTTCTCTCCAGCTCCCTGATCTGAGTCAATGGCTTCGTTAAAGCTGGACA
TCTGGGAAGACAGTTCCTCTCTCTTGGATAAAATTCCTGGAATCAGCGCCCCGTTAGA
GCAGGCTTCCATCTCTTCTGTTTCCATTTGAATCAACTGCTCTCCACTGGGCCCCACTGTGGG
GGCTCAGCTCCTTGACCCTGCTGCATATCTTAAGGGGTGTTTAAAGGATATTCACAGGAGCT
TATGCCTGGT

14347.2

CTCCTCTTGGTACATGAACCCAAGTTGAAAGTGGACTTAACAAAGTATCTGGAGAACCAA
GCATTCGTCTTTGACTTTGCATTTGATGAAACAGCTTCGAATGAAGTTGTCTACAGGTTTAC
AGCAAGGCCACTGGTACAGACAATCTTTGAAGGTGGAAAAGCAACTTGTITTTGCATATGG
CCAGACAGGAAGTGGCAAGACACATACTATGGGCGGAGACCTCTCTGGGAAAGCCCCAGAA
TGCATCCAAAGGGATCTATGCCATGGCCTTCCGGGACGTCTTCTTCTGAAGAATCAACCTT
GCTACCGGAAGTTGGGCTGGAAGTCTATGTGACATTCTTCGAGATCTACAATGGGAAGCT
GTTTGACCTGCTCAACAAGAAGGCCAAGCTTGGCGGTGCTGGAAGACGGCAAGCAACAGG
TGCAAGTGGTGGGGGCTTGACGGAACATCTGONTAACTCTGCTTGATGATGGCANTCAAG
ATGATCGACATGGGCAGCGCCTCCAGA

14348.2&14350.1&2

TCCCGAATTCAAGCCACAAAATGGAWAGTGAATGGAAGATGCCTATCATGAACATCAGG
CAAATCTTTTCCGCCAAGATCTGATGAGACGACAGGAAGAATTAAGACGCATGGAAGAAC
TTCACAATCAAGAAATCCAGAAACGTAAAGAAAATGCAATTGAGGCAAGAGGAGGAACGA
CGTAGAAGAGAGGAAGAGATGATGATTCGTCAACGTGAGATGGAAGAACAATGAGGCG
CCAAAGAGAGGAAAGTTACAGCCCAATGGGCTACATCGATCCACGGGAAAGAGACATGC
GAATGGGTGGCGGAGGACCAATGAACATGGGAGATCCCTATGGTTCAGGAGGCCAGAAA
TTCCACCTCTAGGAGGTGGTGGTCCCATAGGTTATGAAGCTAATCCTGGCGTTCCACCAG
CAACCATGAGTGGTTCATGATGGGAAGTGACATGGCTACTGAGCGCTTTGGGCAGCGAG
GTGCGGGGCTGTGGGTGGACAGGGTCTAGAGGAATGGGGCCTGGAATCCAGCAGGAT
ATGGTAGAGGGAGAGAAGAGTACGAAGCC

14349.1&2

TTGCTGAAGACCCCTGACTGGTAAGACCATCAGTCTCGAAGTGGAGCCCCAGTGACACCAT
GAGAAATGTCAGGCAAGATCCAAAGACAAGGAAGGCATCCCTCCTGACCAGCAKAGGTTG
ATCTTTGCTGGGAAACAGCTCGAAGATGGACGCACCCCTGTCTGACTACAACATCCAGAAA
GAGTCCACCCCTGCACCTGGTCTCGTCTCAGAGGTGGGATGCAAAATCTTCTGTGAAGACCC
TGACTGGTAAGACCATCAGCTCGAGGTGGACCCAGTGACACCATCGAGAATGTCAAGG
CAAGATCCAAAGATAAGCAAGGCCATCCCTCCTGATCAGCAGAGGTTGATCTTTGCTGGGA
AACAGCTCGAAGATGGACGCACCCCTGTCTGACTACAACATCCAGAAAGAGTCCACTCTGC
ACTTGGTCTCTGCGCTTGAGCGCGGGGTGTCTAAGTTTCCCTTTTAAGGTTTCAACAAATTC
ATTGCACTTTCTTTCAATAAAGTTCTTCCATT

FIG. 15R

14352.1&2

GCGCGGGTGGCTGGGCGCACTGGGTGACCGACTTAGCCTGGCCAGACTCTCAGCACCTGGA
AGCGCCCCGAGAGTGACAGCGTGAGGCTGGGAGGGAGGACTTGGCTTGAGCTTGTAAAC
TCTGCTCTGAGCCTCCTTGTGCGCTGCATTTAGATGGCTCCCGCAAAGAAGGGTGGCGAGA
AGAAAAAGGGCCGTTCTGCCATCAACGAAGTGGTAACCCGAGAATACACCATCAACATTC
ACAAGCGCATCCATGGAGTGGGCTTCAAGAAGCGTGCACCTCGGGCACTCAAAGAGATT
GGAAATTTGCCATGAAGGAGATGGGAATCCAGATGTGCGCATTGACACCAGGCTCAACA
AAGCTGTCTGGGCCAAAGGAATAAGGAATGTGCCATACCGAATCCGTGTGCGGCTGTCCA
GAAAACGTAATGAGGATGAAGATTCACCAAATAAGCTATATACTTTGGTTACCTATGTACC
TGTTACCACTTTCAAAAATCTACAGACAGTCAATGTGGATGAGAACTAATCGCTGATCGT

14353.1

AATTCCTTATTTAAATCAACA.AA.CT.CATCTTCTCAAGCCCCAGACCATGGTAGGCAGCCC
TCCCTCTCCATCCCCCTACCCCCACCCCTTAGCCACAGTGAAGGGAATGGAAAATGAGAAGC
CAGGAGGGCCCCCTGCCAGGGAAGGCTGCCCCAGATGTGTGGTGAGCACAGTCAGTGCAGC
TGTGGCTGGGGCAGCAGCTGCCACAGGCTCCTCCCTATAAATTAAGTTCCTGCAGCCACAG
CTGTGGGAGAAGCATACTTGTAGAAGCAAGGCCAGTCCAGCATCAGAAGGCAGAGGCAG
CATCAGTGACTCCCAGCCATGGAATGAACGGAGGACACAGAGCTCAGAGACAGAACAGG
CCAGGGGGAAGAAGGAGAGACAGAAATAGGCCAGGGCATGGCGGTGAGGGA

14353.2

TGATCAATCTGGGTGGGCTGGCAGTAGCCCCAGATGATGGGCTCTTCTCTGGGGATCCCAA
CTGGTTCCCTAAGAAA.TCCAAGCAGAACTCTCGGA.ACTTCTCGGATA.ACCAGCTGCAAGA
GGGCAAGAACGTGATCGGCTTACAGATGGGCACCAACCGCGGGCGTCTCANGCAGGCAT
GACTGGCTACGGGATGCCAGCCAGATCCTCTGATCCCACCCAGGCCCTTCCCCCTGCCCT
CCCAGGAATGGTTAATATATATGTAGATATATTTTAGCAGTGACATCCCAGAGAGCCCC
CAGAGCTCTCAAGCTCCTTTCTGTACGGTGGGGGTTCAAGCCTGTCTGTCACTCTGA
AGTGCTGCTGGCATCCTCTCCCCCATGCTTACTAATACATTCCCTTCCCCATAGCC

17182.1&2

AGCGGAGCTCCCTCCCTGGTGGCTACAACCCACACACGCCAGGCTCAGGCCATCGAGCAG
AACTCCAGCGACTGGGTAACCACTGACATTCAGGTGAAGGTGCGGGACACCTACCTGGAT
ACACAGGTGGTGGGACAGACAGGTGTATCCCGAGTGTACGGGGGGCATGTGCTCTGTG
TACCTGAAGGACAGTGAGAAAGTTGTACGATTTCCAGTGAGCACCTGGACCCATCACC
CCACCAAGAACAACAAGGTGAAGTGATCCTGGGGCAGGATCGGGAAGCCACGGGCGT
CCTACTGAGCATTTGATGGTGAGGATGGCAATGTCCGTATGGACCTTGATGAGCAGCTCAAG
ATCCTCAACCTCCGCTTCTTGGGGAAGCTCCTCGAAGCCTGAAGCAGGCAGGGCCGGTGG
ACTTCGTGGATGAAGAGTGATCCTCCTTCTTCCCTGGCCCTTGGCTGTGACACAAGATC
CTCCTGCAGGGCTAGCCCGATTCCTTCTGGATTTCCTTTGTTTTCTTTTAGGTTTCCATCT
TTTCCCTCCCTGGTCTCAATGGAATCTCAGTAGAGTCTGGGGGAGGGTCCCCACCTTCT
GTACCTCCTCCCCACAGCTTCTTTTGTGTACCGTCTTTCAATA.AAAAAGAAGCTGTTTGGT
CTA

FIG. 15S

17183.2

GGTTCACAGCACTGCTGCTTGTGTGTTCCCGGCCAGGAATCCAGGCTCACAAGGCTATCT
TAGCAGCTCGTTCTCCCGTTTTAGTGCCATGTTTGAACATGAAATGGAGGAGAGCAAAAA
GAATCGAGTTGAAATCAATGATGTGGAGCCTGAAGTTTTAAGGAAATGATGTGCTTCATT
TACACGGGGGAAGGCTCCAAACCTCGACAAAAATGGCTGATGATTTGCTGGCAGCTGCTGAC
AAGTATGCCCTGGAGCGCTTAAAGGTCAATGTGTGAGGATGCCCTCTGCAGTAACCTGTCCG
TGGAGAACGCTGCAGAAATTCATCCTGGCCGACCTCCACAGTGCAGATCAGTTGAAAA
CTCAGGCAGTGGATTTTCATCAACTATCATGCTTCGGATGTCTTGGAGACCTCTTGGG

17186.1&2

TCGTAGCCATTTTTCTGCTTCTTGGAGAATGACGCCACACTGACTGCTCATTGTGCTTGGT
TCCATGCCAATTGGTGAAATAGAACCTCATCCGGTAGTGGAGCCGGAGGGACATCTTGTC
ATCAACGGTGATGGTGCGATTTGGAGCATACAGAGCTTGGTGTCTCGCCATACAGGGCA
AAGAGGTTGTGACAAAGAGGAGAGATACGGCATGCCCTGTGCAGCCCTGATGCACAGTTCC
TCTGCTGTGTAATCTCCACTGCCCAGCCGGAGGGGCTCCCTGTCCGACAGATAGAAGATCA
CTTCCACCCCTGGCTTG

17187.1&2

TGGCACACTGCTCTTAAGAACTATGANGATCTGAGATTTTTGTGTATGTTTTGACTCT
TTTGAGTGCTAATCATATGTGCTTTATAGATGTACATACCTCCTTGCACAAATGGAGGGG
AATTCATTTTCATCACTGGGAGTGTCTTATAGTGTATAAAAAACCATGCTGTTATATGGCTTC
AAGTTGTAAAAATGAAAGTGACTTTAAAGAAAAATAGGGGATGGTCCAGGATCTCCACTG
ATAAGACTGTTTTAAGTAACTTAAGGACCTTTGGGTCTACAAGTATATGTGAAAAAAATG
AGACTTACTGGGTGAGGAAATTCATTGTTTTAAAGATGGTGGTGTGTGTGTGTGTGTGTG
TGTGTTGTGTTGTTTTGTTTTAAAGGACGGGAATTTATTTACCGTTGCTTGAAATT
ACTGKGTAAATATATGTYTCATAATGATTTGCTYTTTGVMACATAAAATTAGGVCTGTATA
AGTWCTARATGCMTCCTTCCGNTTCATYTTCCMAGATATTCATGATAMCCCTTAAATTT
GTAACCYGCCTTTTCCCTTTGCTYTCMAATTAAGTCTATTCTMAAAG

17191.1&39.1

GGGGGTAGGCTCTTTATTAGACGGTTATTCCTGTACTACAGGGTCAGAGTGCAGTGTAAAGC
AGTGTACAGAGGCCCCGCTTCAGCCCAAGAAATGTGGATTTTCTCTCCCTATTGATCACAGTG
GGTGGGTTTCTTCAGAAAAGCCCCAGAGCCAGGGACCAGTGAGCTCCAAGGTTAGAAGTG
GAACTGGAAGGCTTCAGTCACATGCTGCTTCCACGGCTTCCAGGCTGGGCAGCAAGGAGGA
GATGCCCCATGACGTGCCAGGTCTCCCATCTGACACCAGTGAAGTCTGGTAGGACAGCAG
CCGCACGCTTGCCTCTGCCAGGAGGCCAATCATGGTAGGCAGCATTGCAGGGTCAGAGGT
CTGAGTCCGGAATAGCAGCAGCGGCAGGTCCCTGCGGAGAGGCCACTTCTGGCCTGAAGAC
AGCTCCAATTGAGCCCCCTCCAGTACAGGYGTAGTCCCTTGGACCAAGCCCAACAGCCTGGTA
AGGGCCGCTGCCAGGGCCACGGCCAGGAGCCA

FIG. 15T

TAATTTCTTAGTCGTTTGGAAATCCTTAAGCATGCAAAAAGCTTTGAACAGAAGGGTTACAA
 AGGAACCAGGGTTGTCTTATGGCATCCAGTTAAGCCAGAGCTGGGAATGCCTCTGGGTCAT
 CCACATCAGGAGCAGAAGCACTTGACTTGCTGGTCTCTGCTGCCACGGTTTGGGCGCCACC
 ACGCCCACGTCCACCTCGTCTCTCCCTGCCGCCACGTCTGGGCGGCCAAGGTCTCCAAAA
 TTGATCTCCAGCTGAGACGTTATATCATTTGCTGGCTTCCGGAAATGATGGTCCATAACCG
 AATCTTCAGCATGAGCCTCTTCACTCTTTGATTTATGAAGAACAAATCCCTTCTTCACTGC
 CCATCAGCACCTTCAATTTGGTTTTCGGATATTAATTTCTACTTTTGGCCGGTCTTATTTTGA
 ATAGCCTTCCACTCATCCAAAGTCACTCTTTTGGACCCTCTCTTTTACCTCTTCAACTTCA
 TTCTCTTATTTTCAAGTGTCTGCCACTGGATGATGTTCTTACCTTCAGGTGTTTCTCAGTC
 ACATTTGATTGATCCAAGTCAGTTAATTCGTCTTTGACAGTTCCCCAGTTGTGAGATCCGCT
 ACCTCCACGTTTGTCTCTGCTTTCAGGCCAGATCTATCACTTCCACTATGCCTATCAAATT
 CACGTTTGGCACGAGAATCAAATCCATCTCTCGGCCCATTCACGTCCACGGCCCCCTCG
 ACCTCTTCCAAGACCACCACGACCTCGAATAGGTGCGGTCAATAATCGGTCTATCAACTGAA
 AATTCGCTCTCTTCACTCTTTTCTCAAGTGGCTTTTGAATCTTCGTTACAGAGGTGGTGG
 CTTTCTGGTCTTCTATCAATTAATTTCCCTTACCCTGAAGTTGTTGATCAGGTCTTCTCC
 AACTCGTGC

17193

AACCGGATGGACCTGAGTCAGCCGAATCCTAGCCCCCTTCCCTTGGGCTGCTGTGGTGTCTC
 GACATCAGTGACAGACCGAAGCAGCAGACCATCAAGGCTACGGGAGGCCCGGGCGCTT
 GCGAAGATGAAGTTTGGCTGCTCTCTCTTCCGGCAGCCTTATGCTGGCTTTGTCTTAAATG
 GAATCAAGACTGTGAGACCCCTGCGCTCTGCTGAGCAGCCAGCGGAAGTGTACCA
 TCGCCGTCCACATTCCTCACACCGCACTCGGAAGGCGATGCTGTCCGGAGCTGCTGGTGG
 AGAGACTCGGGATGACTCTCTCTCAGATTACGGCCTTGCTCAGCAAGGGGAAAAGTTTG
 GTCCAGGAGTGATACCGGGACTCTTGACATTTGGGAAAACCTTTCCAATGCCCGAAGACT
 TAACTCCCGATGAGGTTGTGGAAGTACAAAAATCAAGCTGCACTGACCAACCTGAAGCAGA
 AGTACCTGACTGTGATTTCAAACCCAGGTGCTTACTGAGCCCAATACCTAGGAAAGGAG
 GCAAGGATGTATTCAGGTAGACATCCCAAGCACCTGATCCCTTTGGGGCATGAAGTGT
 GACAAGTGTGGGCTCTGAAAGCAATGTTCCRGAGAAACCACTAAATCATGGCACCTTC
 AATTTGCCATCCTGACCCAGACCTGTATAAAATAGGTTAAAGATGAATTTCCACTGCTTTG
 GACAGTCCCAACCACTAAGCACTGTCCATGTAAACAGGTTCTTTGCTCAGATGAAGGAA
 GTAGGGGGTGGGGCTTCTTGTGTGATGCTCTTAGGCACACAGCCAAATGTCTCAAGTA
 CTTTGACCTTAGGGTAGAAGGCAAGCTGCCAGTAAATGTCTCAGCATTGCTGCTAATTTT
 GGTCTGCTAGTTTCTGCAATGTACAAAATAAATGTGTTGTAGATGA

FIG. 15U

16443.1.edit

TCGAGCGGCCGCCCGGGCAGGTGTGCGAGTCCAGCACGGGAGGCGTGGTCTTGTAAGTTGT
TCTCCGGCTGCCCATTTGCTCTCCCACTCCACGGCGATGTGCGTGGGATAGAAGCCTTTGAC
CAGGCAGGTGAGGCTGACCTGGTTCTTGGTCACTCCTCCCGGGATGGGGGCAGGGTGTAC
ACCTGTGGTTCTCGGGGCTGCCCTTTGGCTTTGGAGATGGTTTTCTCGATGGGGGCTGGGA
GGGCTTTGTTGGAGACCTTGCCTTGTACTCCTTGCCATTCAACCAGTCTGGTGCANGAC
GGTGAGGACGCTNACCACACGGTACGNGCTGGTGTACTGCTCCTCCCGCGGCTTTGTCTTG
GCATTATGCACCTCCACGCCGTCCACGTACCAATTGAACCTGACCTCAGGGTCTTCGTGGC
TCACGTCCACCACCACGCATGTAACCTCAAANCTCGGNCGCGANACGC

16443.2.edit

AGCGTGGTCCGGGCCGAGGTCTGAGGTTACATGCGTGGTGGTGGACGTGAGCCACGAAGA
CCCTGAGGTCAAGTTCAACTGGTACGTGGACGCGTGGAGGTGCATAATGCCAAGACAAA
GCCGCGGGAGGAGCAGTACAACAGCACGTACCGTGTGGTCAGCGTCCTCACEGTCCTGCA
CCAGGACTGGCTGAATGGCAAGGAGTACAAGTGCAAGGTCTCCAACAAAGCCCTCCCAGC
CCCCATCGAGAAAACCATCTCCAAAGCCAAAGGGCAGCCCCGAGAACCACAGGTGTACAC
CCTGCCCCCATCCCCGGGAGGAGATGACCAAGAACAGGTGACCTGACCTGCCTGGTCAA
AGGCTTCTATCCAGCGACATCGCCCGTGGAGTGGGAGAGCAATGGGCAGCCGGAGAACA
ACTACAAGACCACGCCTCCCGTGTGACTCCGACACCTGCCGGGCGGCCGCTCGA

16444.2.edit

AGCGTGGTTNCGGCCGAGGTCCCAAGCAAGGCTGCANCTGGATGCCATCAAAGTCTTCTG
CAACATGGGAGACTGGTGAGACCTGCCGTGTACCCCACTCAGCCCAGTGTGGCCGAGAAGAA
CTGGTACATCAGCAAGAACCCCAAGGACAAGAGCCATGTCTGTTCCGGGAGAGCATGAC
CGATGGATTCCAGTTCGAGTATGGCCGCCAGGCTCCGACCCTGCCGATGTGGACCTGCCC
GGCCGGNCGCTCGA

16445.1.edit

AGCGTGGTCCGGGCCGAGGTCAAGAACCCCGCCCGCACCTGCCGTGACCTCAAGATGTGC
CACTCTGACTGGAAGAGTGGAGAGTACTGGATTGACCCCAACCAAGGCTGCAACCTGGAT
GCCATCAAAGTCTTCTGCAACATGGAGACTGGTGGAGACCTGCGTGTACCCCACTCAGCCCA
GTGTGGGCCAGAAAGAACTGGTACATCAGCAAGAACCCCAAGGACAAGAGCCATGTCTGGT
TCGCCGAGACCATGACCGATGGATTCCAGTTCGAGTATGGCCGGCCAGGCTCCGACCCTG
CCGATGTGGACCTGCCCGCCCGCCCGCTCGA

FIG. 15V

00631301-081000

16445.2.edit

TCGAGCGGTGCGCCGGGCAGGTCCACATCGGCAGGGTCGGAGCCCTGGCCGCCATACTCG
AACTGGAATCCATCGGNCATGCTCTCGCCGAACCAGACATGCCTCTTGNCCTTGGGGTTCT
TGCTGATGTACCAGNTCTTCTGGGCCACACTGGGCTGAGTGGGGTACACGCAGGTCTCACC
ANTCTCCATGTTGCANAAAGACTTTGATGGC.ATCCAGGTTGCAGCCTTGGTTGGGGTCAATC
CAGTACTCTCCACTCTTCCAGACAGAGTGGCACATCTTGAGGTCACGGCAGGTGCGGGCGG
GGTCTTGACCTCGGTGCGGACCACGCT

16446.1.edit

TCGAGCGGCCGCGCCGGGCAGGTCTCTCAGAGCGGTAGCTGTTCTTATTGCCCCGGCAGC
CTCCATAGATNAAGTTATTGCANGAGTTCTCTCCACGTCAAAGTACCAGCGTGCGGAAGG
ATGCACGGCAAGGCCAGTGAAGTGGCGGTGCAGTATTCTTCATAGTTGAACATATC
GCTGGAGTGGACTTCAGAACTCTGCTTCTGGGAGCACTTGGGACAGAGGAATCCGCTGC
ATTCTGCTGGTGGACCTCGGCCGCGACCACGCT

16446.2.edit

AGCGTGGTGGCGGCCGAGGTCCACCAGCAGGAATGCAGCGGATTCTCTGTCCCAAGTGC
TCCCAGAAGGCAGGATTCTGAAGACCCTCCAGCGATATGTTCAACTATGAAGAATACTG
CACCGCCAACGCAGTCACTGGGCCCTTGGCGTGCATCTTCCCACGCTGGTACTTTGACGTG
GAGAGGAACTCTGCAATAACTTCATCTATGGAGGCTGCCGGGGCAATAAGAACAGCTAC
CGCTCTGAGGAGGACCTGCCCGGGCGCGGCTCGA

16447.1.edit

TCGAGCGGCCGCGCCGGGCAGGTCCACATCGGCAGGGTCGGAGCCCTGGCCGCCATACTCG
AACTGGAATCCATCGGTCATGCTCTCGCCGAACCAGACATGCCTCTTGTCCTTGGGGTTCT
TGCTGATGTACCAGTTCTTCTGGGCCACACTGGGCTGAGTGGGGTACACGCAGGTCTCACC
AGTCTCCATGTTGCAGAAGACTTTGATGGC.ATCCAGGTTGCAGCCTTGGTTGGGGTCAATC
CAGTACTCTCCACTCTTCCAGCCAGAAATGGCACATCTTGAGGTCACGGCANGTGGGGCGG
GGTCTTGACCTCGGCCGCGACCACGCT

FIG. 15W

00636801.08.1000

16447.2.edit

AGCGTGGTTCGGCGCCGAGGTCAAGAAACCCCGCCGACCTGCCGTGACCTCAAGATGTG
CCTACTCTGGCTGGAAGAGTGGAGAGTACTGGATTGACCCCAACCAAGGCTGCAACCTGGA
TGCCATCAAAGTCTTCTGCAACATGGAGACTGGTGAGACCTGCGTGTACCCCACTCAGCCC
AGTGTGGCCCCAGAAGAAGTGGTACATCAGCAAGAACCCCAAGGACAAGAGGCATGTCTGG
CTCGCGAGAGCATGACCGATGGATTCCAGTTCGAGTATGGCGGCCAGGGCTCCGACCCCT
GCCGATGTGGACCTGCCCGGGCGGCCGCTCGA

16449.1.edit

AGCGTGGTTCGGCGCCGAGGTCTGTGACAGTGGCACTGGTAGAAGNTCCAGGAACCTGA
ACTGTAAGGGTTCTTCATCAGTGCCAACAGGATGACATGAAATGATGTACTCAGAAGTGTG
CTGNAATGGGGCCCATGANATGGTTGCTGAGAGAGAGCTTCTTGTCTACATTCCGGCGG
GTATGGTCTTGGCCTATGCCCTATGGGGGTGGCCGTTGNGGGCGGTGNGGTCCGCCTAAAA
CCATGTTCTCAAAGATCATTTGTTGCCCAACACTGGGTTGCTGACCANAAGTGCCAGGAA
GCTGAATACCATTTCCAGTGTCTATCCAGGGTGGGTGACGAAAGGGGTCTTTTGAAGTGT
GGAAGGAACATCCAAGATCTCTGNTCCATGAAGATTGGGGTGTGGAAGGGTTACCAGTTG
GGGAAGCTCGCTGTCTTTTCTCTCCAATCANGGGCTCGCTCTTCTGAATAATTCTCAGGGC
AATGACATAAAATGTATATTCGGTTCCCGGTTCCAGGCCAG

16450.1.edit

TCGAGCGGGCCCGCCCGCCAGGTCCACCACACCCCAATTCCTTGCTGGTATCATGGCAGCCGC
CACGTGCCAGGATTACCGGCTACATCATCAAGTATGAGAAAGCCTGGGTCTCTCCAGAGA
AGTGGTCCCTCGCCCCCGCCCTGGTGTACAGAGGCTACTATTACTGGCCTGGAACCGGGA
ACCGAATATACAATTTATGTCAATGGCCTGAAGAATAATCAGAAGAGCGAGCCCTGATTG
GAAGGAAAAAGACAGACGAGCTTCCCAACTGGTAACCCCTTCCACACCCCAATCTTCATG
GACCAGAGATCTTGGATGTTCTTCCACAGTTCAAAAGACCCCTTTCGTACCCACCCCTGG
GTATGACACTGGAAATGGTATTCAGCTTCTGGCACTTCTGGTCAGCAACCCAGTGTGGG
CAACAAATGATCTTTGANGAATGCTNTTAGGGCGGACCACACCGGCCACAACGGGCCACC
CCCATAGGCCATAGGCCAAGAACATACCCGNGCAATGTAGGACAAGAAGCTCTNTCTCAN
ACAANCAATCTCATGGGCCCCCATTCANGACACTTCTGAGTACATCANTTCATGGCAATCCTG
GTGGCACTGATAAAAAACCTTACAGTTA

16450.2.edit

AGCGTGGTTCGGCGCCGAGGTCTGTGACAGTGGCACTGGTAGAAGTTCCAGGAACCTGA
ACTGTAAGGGTTCTTCATCAGTGCCAACAGGATGACATGAAATGATGTACTCAGAAGTGTG
CTCGAATGGGGCCCATGAGATGGTTGCTGAGAGAGAGCTTCTTGTCTACATTCCGGCGGG
TATGGTCTTGGCCTATGCCCTATGGGGGTGGCCGTTGTGGGCGGTGTGGTCCGCCTAAAA
CATGTTCTCAAAGATCATTTGTTGCCCAACACTGGGTTGCTGACCAGAAGTGCCAGGAAG
CTGAATACCATTTCCAGTGTCTATCCAGCGCTGGGTGACGAAAGGCGTCTTTTGAAGTGTG
GAAAGGAACATCCAAGATCTCTGGTCCATGAAGATTGGGGTGTGGAAGGGTTACCAGTTGG
GGAAGCTCGTCTGTCTTTTCTCTCCAATCANGGGCTCGCTCTTCTGATTATTCTTCAGGGC
AATGACATAAAATGTATATTCGCTTCCCGGTTNAGCCCAATAATAAACCCTCTGTGACA
CCANGGCGGGCCCAAGGANCAT

FIG. 15X

00636801.081000

16451.1.edit

AGCGTGGTCCGCGGCCGAGGTCCTCACCAGAGGTACCACCTACAACATCATAGTGGAGGCA
CTGAAAGACCAGCAGAGGCATAAGGTTCCGGAAGAGGTTGTTACCGTGGGCAACTCTGTC
AACGAAGGCTTGAACCAACCTACGGATGACTCGTGCTTTGACCCCTACACAGTTTCCCAT
ATGCCGTTGGAGATGAGTGGGAACGAATGTCTGAATCAGGCTTTAAACTGTTGTGCCAGTG
CTTANGCTTTGGAAGTGGTCAATTCAGATGTGATTCATCTAGATGGTGCCATGACAATGGT
GTGAACTACAAGATTGGAGAGAAGTGGGACCGTCAGGGAGAAAATGGACCTGCCCCGGGC
GCCGCTCGA

16451.2.edit

TCGAGCGGCCGCGGCCGAGGTCATTTTCTCCCTGACGGTCCCACTTCTCTCCAATCTTGT
AGTTCACACCATTTGTATGGCACCATCTAGATGAATCACATCTGAAATGACCACTTCCAAA
GCCTAAGCACTGGCACAACAGTTTAAAGCCTGATTAGACATTCGTTCCCACTCATCTCCA
ACGGCATAATGGGAAACTGTGTAGGGGTCAAAGCAGGATCATCCGTAGGTTGGTTCAAG
CCTTCGNTGACAGAGTTGCCCACGGTAACAACCTCTTCCCGAACCTTATGCCTCTGCTGGT
CTTTCAGTGCCTCCACTATGATGTTGTAGGTGGTACCTCTGGTGAGGACCTCGGCCGCGAC
CACGCT

16452.1.edit

AGCGTGGCCGCGGCCGAGGTCATTTCCCTGGAACGGCATCAACTTGGGAAGCCAGTGATCG
TCTCAGCCTTGGTTCTCCAGCTAATGGTGAATGGNGGTCTCAGTAGCATCTGTACACAGGAGC
CCTTCTTGGTGGCTGACATTTCTCCAGAGTGGTGACAACACCTGAGCTGGTCTGCTTGT
AAAGTGTCTTAAGAATCATACACACTCACTTCATAATGGCGNCCACCATAAGTCCTGATA
CAACCACGGAATGACCTGTCAGGAAC

16452.2.edit

TCGAGCGGCCGCGGCCGAGGTCCTCAGACCGGGTTCTGAGTACACAGTCAGTGTGGTTGC
CTTGACGATGATATCGAGAGCCAGCCCTGATTGGAACCCAGTCCACAGCTATTCCTGCA
CCAACTGACCTGAAGTTCACTCAGGTACACCCACAAGCCTGAGCGCCAGTGGACACCA
CCCAATGTTGAGCTCACTGGATATCGAGTGGGGTGACCCCCAAGGAGAAGACCGGACCA
ATGAAAGAAAATCAACCTTCTCTCCTGACAGCTCATCCGTGGTTGTATCAGGACTTATGGCGG
CCACCAAATATGAAGTGAAGTCTATGCTCTTAAGGACACTTTGACAAGCAGACAGCTCA
GGGTGTTGTACCACTCTGGAGAAATGTCACCCACCAAGAAGGGCTCGTGTGACAGATGC
TACTGAGACCACCATCACCAATAGCTGGAGAACCAAGACTGAGACGATCACTGGCTTCCA
AGTTGATGCCGTTCCAGCCAATGGACCTCGCCCGCCACCACGCTT

FIG. 15Y

16453.1.edit

AGCGTGGTCGCGGCCGAGGTCTGGCCGAAGTCCAGGTGTACAGGGAAGATGTACATGTTA
TAGNTCTTCTCGAAGTCCCGGGCCAGCAGCTCCACGGGGTGGTCTCCTGCCTCCAGGCGCT
TCTCATCTCATGGATCTTCTTCACCCGAGCTTCTGCTTCTCAGTCAGAAGGTTGTTGTCC
TCATCCCTCTCATAACAGGGTGACCAGGACGTTCTTGAGCCAGTCCCGCATGCGCAGGGGGA
ATTCGGTCAGCTCAGAGTCCAGGCAAGGGGGGATGTATTTGCAAGGCCCCGATGTAGTCCA
AGTGGAGCTTGTGGCCCTTCTTGGTGCCCTCCAAGGTGCACTTTGTGGCAAAGAAGTGGCA
GGAAGAGTCGAAGGTCTTGTGTGCAATTGCTGCACACCTTCTCAAAGTCCGCAATGGGGGCT
GGGCAGACCTGCCCGGGCGGCCGCTCGA

16453.2.edit

TCGAGCGGCCGCCCCGGGCAGGTCTGCCCAGCCCCCATTTGGCGAGTTTGAGAAGGNGTGCA
GCAATGACAACAAAGACCTTCGACTCTTCTGECACCTTCTTTGCCACAAAGTGCACCCTGGA
GGGCACCAAGAAGGGCCACAAGCTCCACCTGGACTACATCGGGCCTTGCAAATACATCCC
CCCTTGCTGGACTCTGAGCTGACCGAATTCCTTGGCGATGCGGGACTGGCTCAAGAAC
GTCTGGTCACCTGTATGAGAGGGATGAGGACAACACCTTCTGACTGAGAAGCANAAG
CTGCGGGTGAAGAANAATCCATGAGAATGANAAGCGCCTGNAGGCANGAGACCACCCCGT
GGAGCTGCTGCCCCGGGACTTCGAGAAGAACTATAACATGTACATCTTCCCTGTACACTGG
CAGTTCGGCCAGACCTCGCCCCCGACACCGT

16454.1.edit

AGCGTGGNTCCGGACGACGCCCCACAAAGCCATTTGTATGTAGTTTTANTTCAGCTGCAAAAN
AATACCNCCAGCATCCACCTTACTAACCAGCATATGCAGACA

16454.2.edit

TCGAGCGGTGCCCCGGGCAGGTCTGGCCGCGATAGCACCGGGCATATTTTGGGAATGGATGA
GGTCTGGCACCTTGAGCAGCCCCAGGAGTGGTCTTAGTTGAGCAATTTGGCTAGGA
GGATAGTATGCAGCACCGTTCTGAGTCTGTGGGATAGCTGCCATGAAGNAACCTGAAGGA
GGCGCTGGCTGGTANGCGTTGATTACAGGCTGGGAACAGCTCGTACACTTGCCATTCTCT
GCATATACTGGNTACTGAGCCGAGGCTGGCGCTCTTCTTGGCTGAGCTAAAGCTACATA
CAATGGCTTTGNGGACCTCGGCCGCGACACGCTT

FIG. 15Z

16455.1.edit

TCGAGCGGCCGCGCCGGCCAGGTCCATTTTCTCCCTGACGGTCCCACTTCTCTCCAATCTTGT
AGTTCACACCATTTGTCATGACACCATCTAGATGAATCACATCTGAAATGACCACTTCCAAA
GCCTAAGCACTGGCACAACAGTTTAAAGCCTGATTCAGACATTCGTTCCCACTCATCTCCA
ACGGCATAATGGGAACTGTGTAGGGGTCAAAGCACGAGTCATCCGTAGGTTGGTTCAAG
CCTTCGTTGACAGAAGTTGCCCACGGTAACAACCTCTTCCCGAACCTTATGCCTCTGCTGGT
CTTCAAGTGCCTCCACTATGATGTTGTAGGTGGCACCTCTGGTGAGGACCTCGGCCGCGA
CCACGCT

16455.2.edit

AGCGTGGTTTTCGGGCCGAGGTCCCTACCANAGGTGCCACCTACAACATCATAGTGGAGGC
ACTGAAAGACCAGCAGAGGCATAAGGTTTCGGGAAGAGGTTGTTACCGTGGGCAACTCTGT
CAACGAAGGCTTGAACCAACCTACGGATGACTCGTGCTTTGACCCCTACACAGNTTCCCAT
TATGCCGTTGGAGATGAGTGGGAACGAATGTCTGAATCAGGCTTTAAACTGTTGTGCCAGT
GCTTANGCTTTGGAAAGTGGTCATTTAGATGTGATTCTANATGGTGTGATGACAATGG
TGNGAACTACAAGATTGGAGAGAAGTGNACCGTCAGGGGANAAAAATGGACCTGCCCCG
GCGGCNCGCTCGA

16456.1.edit

AGCGTGGTTCGGGCCGAGGTCTGGCTTCTGCTCANGTGATTATCCTGAACCATCCAGGCC
AAATAAGCGCCCGCTATGCCCTGNAATTGGATTGCCACACGGCTCACATTGCATGCAAGTT
TGCTGAGCTGAAGGAAAAGATTGATC

16456.2.edit

TCGAGCGGCCGCGCCGGCCAGGTCCAAATGAAACAAACAGTTCTGAGACCGTTCTTCCACCA
CTGATTAAGAGTGGCGGCGCGGCTATTAGGGATAATATTCAATTTAGCCTTCTGAGCTTTCT
CGGCAGACTTGGTGACCTTGGCAGCTCCAGCAGCTTCTGGTCCACTGCTTTGATGACACC
CACCGCAACTGTCTGTCTCATATCACGAACAGCAAAGCGACCCAAAGGTGGATAGTCTGA
GAAGCTCTCAACACACATCGGCTTGGCAGGAACCATATCAACAATGGGCAGCATCACCAG
ACTTCAAGAAATTAAGGGCCATCTTCCAGCTTTTACCAGAACGGCGATCAATCTTTTCTT
CAGCTCAGCAAACCTTGCAATGTCAGCCG

FIG. 15AA

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16459.2.edit

16460.1.edit

16460.2.edit

FIG. 15BB

16461.1.edit

AGCGTGGTCCGGGCGGAGGTCCACATCGGCAGGGTCCGAGCCCTGGCCGCCATACTCGAA
CTGGAATCCATCGGTCACTCTCGCCGAACAGACATGCCTCTTGTCCTTGGGGTTCTTGC
TGATGTACCAGTTCTTCTGGGCCACACTGGGCTGAGTGGGGTACACGCAGGTCTCACCAGT
CTCCATGTTGCAGAAGACTTTGATGGCATCCAGGNTGCAACCTTGGTTGGGGTCAATCCAG
TACTCTCCACTCTTCCAGCCAGAGTGGCACATCTTGAGGTACGGCAGGTGCGGNCGGGGG
NTTTGCGGCTGCCCTCTGGNCTTCGGNTGTNCTCNATCTGCTGGCTCA

16461.2.edit

TCGAGCGGCGCCCGGGCAGGTCTCGCGGTCCCACTGGTGATGCTGGTCCTGTTGGTCCCC
CCGGCCCTCCTGGACCTCCTGGCCCCCTGGTCTCCAGCGCTGGTTTCGACTTCAGCTTC
CTGCCCCAGCCACCTCAAGAGAAGGCTCAGCATGGTGGCCGCTACTACCGGGCTGATGAT
GCCAATGTGGTTCTGTGACCGTGACCTCGAGGTGGACACCACCCTCAAGAGCCTGAGCCAG
CAGATCGAGAACATCCGGAGCCCCAGAGGCCAGNCGCAAGAACCCCGCCCGCACCTGCCGT
GACCTCAAGATGTGCCACTCTGACTGGAAGAGTGGAGAGTACTGGATTGACCCCAACCAA
GCTGCAACCTGGATGCCATCAAAGTCTTCTGCAACATGGAGACTGGTGAGACCTGCGTGTA
CCCCACTCAGCCAGTGTGCCCAAAAAGAACTGGTACATCAGCAAGAACCCCAAGGACAA
GAAGCATGTCTGGTTCCGGCGAGAACATGACCGATGGATTCCAGTTCGAGTATGGCGGGCA
GGGCTCCGACCCTGCCGATGGGGACCTTGGCCGCGAACACGCT

16463.1.edit

AGCGTGGNNGCGGCGGAGGTATAAATATCCAGNCCATATCCTCCCTCCACACGCTGANAG
ATGAAGCTGTNCAAAGATCTCAGGGTGGANAAAACCAT

16463.2.edit

TCGAGCGGCGCCCGGGCAGGTCTTCAGACTTGGACTGTGTCACTGCCAGGCTTCCAG
GGCTCCAACCTTGCAGACGGCTGTGTTGGGACAGTCTCTGTAATCGCGAAAGCAACCATG
GAAGACCTGGGGGAAAACACCAATGGTTTATCCACCCTGAGATCTTTGAACAACCTTCATCT
CTCAGCGTCCGGAGGGAGGCTCTGCACTGGATAATTCTACCTCGGCCGCGACCACGCT

FIG. 15CC

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16464.1.edit

CGAGCGGGCGACCGGGCAGGTNCAGACTCCAATCCANANAACCATCAAGCCAGATGTCAG
AAGCTACACCATCACAGGTTTACAACCAGGCACTGACTACAAGANCTACCTGCACACCTTG
AATGACAATGCTCGGAGCTCCCCGTGGTTCATCGACGCTCCACTGCCATTGATGCACCAT
CAAACCTGCGTTTCTGGCCACCACACCCAATTCTTGCTGGTATCATGGCAGCCGCCACG
TGCAGGATTACCGGTACATCATCNAGTATGANAAGCCTGGGCCTCCTCCCAGAGAAGNG
GTCCCTCGGCCCCCGCCTGNTGTCCCANAGGNTACTATTACTGNGCCNGCAACCGGCAACC
GATATCNATTTTGNCAATTGGCCTTCAACAATAATTA

16464.2.edit

AGCGTGTTTCGCGGCCGANGTCCTGTCAGAGTGGCACTGGTAGAAGTTCCAGGAACCCTG
AACTGTAAGGGTTCTTCATCAGNGCCAACAGGATGACATGAAATGATGTACTCAGAAGTG
TCCTGGAATGGGGCCCATGAGATGGTTGTCTGAGAGAGAGCTTCTTGNCCTGTCTTTTCC
TTCCAATCAGGGGCTCGCTCTTCTGATTATTCTTCAGGGCAATGACATAAATTGTATATTCC
GGTCCCGGNTCCAGGCCAGTAATAGTANCCTCTGTGACACCAGGGCGGNGCCGAGGGACC
ACTTCTCTGGGAGGAGACCCAGGCTTCTCATACTTGATGATGTAACCGGTAATCCTGGCAC
GTGGCGGCTGCCATGATACCAGCAAGGAATTGGGGTGTGGTGGCCAGGAAACGCAGGTTG
GATGGNGCATCAATGGCAGTGGAGGCCGTGATGACCACAGGGGGAGCTCCGACATTGTC
ATTCAAGGTG

16465.1.edit

AGCGTCGNCGGCGCCGACGTGCAGCGCGGGCTGTGCCACCTTCTGCTCTCTGCCCAACGAT
AAGGAGGGTNCCTGCCCCCAGGAGAACATTAACTNTCCCCAGCTCGGCCTCTGCCGG

16465.2.edit

TCGACCGCCCGCCCGGGCAGGTTTCTGCTGAAAGTGGNTACTTTATTGGNTGGGAAAAG
GGAGAAGCTGTGGTCAGCCCAAGAGCGGAATACAGAGNCCCGAAAAGGGGAGGGCAGGT
GGGCTGGAACCGACGCGCGCCAGGCAGAACTTCTCTCTCCTCACTGCTCAGCCTGGTG
GTGGCTGGAGCTCANAAATTGGGAGTGACACAGGACACCTTCCCACAGCCATTGGCGCCGG
CATTTTCATCTGGCCAGGACACTGGCTGTCCACCTGGCAGTGGTCCCGACAGAAGCCCGAGC
TGGGGAAGTTAATGTTACCTGGGGGACGGAACCTCCTTATCATTGNGCAGAGAGCAG
AAGGTGGCACAGCCCGCGCTGCACCTCGCCCGCGACACCGT

16466.2.edit

TCGAGCGCGCCCGCCCGGGCAGGTCCACCATAAGTCTTGATACAACCACGCATGAGCTGTCA
GGAGCAAGGTTGATTTCTTTCAATGGTCCGNCCTTCTCCTTGGGGGNCACCCGCACTCGAT
ATCCAGTGAGCTGAACATTGGCTGGGCTCCACTGGGCGCTCAGGCT

16467.2.edit

TCGAGCGGTTTCGCCCCGGCAGGTCCACCACACCCAATTCTTGCTGGTATCATGGCAGCCG
CCACGTGCCAGGATTACCGGCTACATCATCAAGTATGAGAAGCCTGGGTCTCCTCCCAGAG
AAGCGGTCCCTCGGCCCCGCGCTGCTGTACAGAGGCTACTATTACTGGCCTGGAACCGGG
AACCGAATATACAATTTATGTCAATGNCCTGAAGAATAATCANNAANAGGEGANCCCTGA
TTGGAAGGA

FIG. 15DD

[illegible]

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TCGAGCGGNCGCCCGGGC.AGGTCTGCC.AACACCAAGATTGGCCCCCGCCGCATCCACACA
GTCCGTGTGCGGGGAGGTAACAAGAAATACCGTGCCCTGAGGTTGGACGTGGGGAATTC
TCCTGGGGCTC.AGAGTGTGTACTCGT.AAAACAAGGATCATCGATGTTGTCTACAATGCAT
CTAATAACGAGCTGGTTCGTACCAAGACCCTGGTGAAGAATTGCATCGTGCTCATCGACAG
CAC.ACCGTACCGACAGTGGTACGAGTCCC.ACTATGCGCTGCCCCCTGGGCCGCAAGAAGGG
AGCCAAGCTGACTCCTGAGGAAGAAGAGATTTTAAACA.AAAAAACGATCTAANAAAAAAA
AAACAAT

AGCGTGGTGC GCGGCCGAGGTGAAATGGTATTCAGCTTCCTGGCACTTCTGGTCAGCAACCC
AGTGTGGGCAACAAATGATCTTTCAGCAACATGGTTTTAGGCGGACCACACCGCCCA
ACGGCCACCCCCATAAGGCATAGGCCAAGACCATACCGCCGAATGTAGGACAAGAAGCT
CTCTCTCAGACAACCACTCTCATCGCGCCCCATTCAGGACACTTCTGAGTACATCATTTCTATG
TCATCCTGTTGGCACTGATGAAGAACCCTTACAGTTACGGGTTCTCTGGAACCTTCTACCAGT
GCCACTCTGACAGGACCTGCCCGGGCGGGCGCTCGA

TCGAGCGGCCGCCCGGGCAGGTCTGTGTCAGAGTGGCACTGGTAGAAGTTCCAGGAACCCCT
GAACTGTAACGGTTCTTCATCAGTGGCAACAGGATGACATGAAATGATGTACTCAGAAAGT
GTCTGGAAATGGGCCCCATGAGATGGTGTCTGAGAGAGAGCTTCTGTCTACATTCCGGC
GGGTATGGTCTTTGGCCTATGCCCTATGGCGGTGGCGGTGTGGGCGGTGTGGTCCGCCCTAA
AACCATGTTCTCAAAAGATCAATTTGTGCCCAACACTGGGTTCTGACCAGAAGTGCCAGG
AAGCTGAATACCATTTACCTCGCCCGCCACCACGCTA

TCGAGCGCGCGCCGCGGACAGGTCTCCCTCTTGCGGGCCAGGGCCAGCGCATAGTGGGAC
TCGTACCACTGTTCGGTACGGTGTCTGTGGATGACGACGATGCAATTCTTACCAGGGTCT
TGGTACGAACCAGCTCGTTATTAGATCCATTGTAGACAACATCGATGATCCTTGTTTTACG
AGTACAACACTCTGAGCCCCAGGAGCAAAATCCCCAGTCCAACCTCAGGGCAGGTAATTC
TTGTTACCTCCCCGCACACGGACTGTGTGGATGCGCGCGGGGCCAAGCTGACTCCTGAGGA
ADAAGAGATTTTAAACAATAAAGCATCTAAAAAAATTAGAAGAAATATGATGAAAGGA
AAAAGAATGCCAAATCAGCAGTCTCCTGGAGGACGATTCCAGCAGGGCAAGCTTCTTG
CGTGCATCGCTTCAAGGGCGCGACAGTGTGACCGACGATGGCTATGTGCTAGAGGGCA
AAGAAGTGGAGTCTATCTTAAGAAAAATCAGGGCCCAAGATGCTGNGTCTTCAACTAATC
CAAAGGGGAGTTTCAGACCAGTGCAAATCAGCAAAAAACATTGATACTGNTGGCCAAATTTA
TTGGTGCAGGGCTTGCACANTANGANNCCCTGGGTCTTGGGGCTTGGATTGGNACAAGCT
TTGGCAGCCTTTTCTTTGGTTTTGCCAAAAACCTTTGNTGAAGANGANACCTNGGCGGA
CCCCTTAACCGATTCCACNCCNGGNGCCCTTCTANGNCCCNCTTG

FIG. 15EE

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AGCGTGGTCGCGGCCGAGGTCTGCTGCTTCAGCGAAGGGTTTCTGGCATAACCAATGATA
AGGCTGCCAAAGACTGTTCCAATACCAGCACCAGAACCAGCCACTCCTACTGTTGCAGCAC
CTGCACCAATAAAATTTGGCAGCAGTATCAATGTCTCTGCTGATTGCACTGGTCTGAAACTC
CCTTTGGATTAGCTGAGACACACCATTTCTGGGCCCTGATTTTCTAAGATAGAACTCCAAC
TCTTTGCCCTCTAGCACATAGCCATCTGCTCGGTCACTGTCCCGGCCCTTGAAGCGATGC
ACGCAAGAAGCTTGGCCTGCTGGAAGTCTCTCCAGGAGACTGCTGATTTTGGCATTCTT
TTTCCTTTCATCATATTTCTTCTGAATTTTTTAGATCGTTTTTTGTTTAAATCTCTTCTTCC
TCAGGAGTCAGCTTGGCCCCCGCCGATCCACACAGTCCGTGTGCGGGGAGGTAACAAGA
AATACCGTGGCCTGAGGTTGGACGTGGGGAATTTCTCTGGGGCTCAGAGTGGTGTACTCG
TAAACAAGGATCATCGATGGTGNCTACAATGCATCTAATAACGAGCTGGGTGCGACCCA
AAGAACCTGGNGAANAAATGGATCGNCTCATCGACAGGACACCGTACCCGACAGGGGNA
CGANTCCCACTATGCGCTTGGCCCTGGGCCGCAANAAAGGAAAAGTGGCCGGCGGCCNT
CGAAAGCCCCAATTNTGGAAAAATCCATCACTGGGNGGCCNGTCGAGCATGCATNTAN
AGGGGCCCATCCCCCTNANN

07_16472.edit

TCGAGCGGGCCCGCCGGGCAGGTCCCCAACCAAGGCTGCAACCTGGATGCCATCAAAGTCT
TCTGCAACATGGAGACTGGTGAGACCTGGGTGTACCCCACTCAGCCCAGTGTGGCCGAGA
AGAAGTGGTACATCAGCAAGAACCCCAAGGACAAGAGGCATGTCTGGTTCGGCGAGAGCA
TGACCGATGGATTCCAGTTCGAGTATGCCGCCAGGGCTCCGACCCTGCCGATGTGGACCT
CGGCCGCGACCACGCT

08_16472.edit

AGCGTGGTCGCGGCCGAGGTCCACATGGGCAGGGTGGAGCCCTGGCCGCCATACTCGAA
CTGGAATCCATCGGTCTGCTCTCGCCCAACCAGACATGCCTCTTGTCTTGGGGTCTTGG
TGATGTACCAGTCTTCTCGGCCACACTGGGCTGAGTGGGGTACACGCAGGTCTCACCAGT
CTCCATGTTCCAGAAGACTTTGATGGCATCCAGGTTCAGCCTTGGTTGGGGACCTGCCCC
GGCGGCCGCTCGA

09_16473.edit

TCGAGCGGGCCCGCCGGGCAGGTCCACCACACCCAAATTCCTTGCTGGTATCATGGCAGCCGC
CACGTGCCAGGATTACCGGCTACATCATCAAGTATGAGAAGCCTGGGTCTCCTCCAGAGA
AGTGGTCCCTCGGCCCGCCCTGGTGTACACAGGCTACTATTACTGGCCTGGAACCGGGA
ACCGAATATACAATTTATGTCAATGCCCTGAAGAAATATCAGAAGAGCCGAGCCCTGATTG
GAAGGAAAAAGACAGACGAGCTTCCCAACTGGTAACCCCTCCACACCCCAATCTTTCATG
GACCAGAGATCTTGGATGTTCTTCCACAGTTCAAAAGACCCCTTTCGTACCCACCCCTGG
GTATGACACTGGAAATGGTATTCAGCTTCTGGCACTTCTGGTCAGCAACCCAGTGTGGG
CAACAAATGATCTTTGAGGAACATGGNTTACGCCGACCCACACCGCCCAACACGGGCCACC
CCCATAAAGGCATAGGCCAAGACCATAACCGCCGAATGTAGGACAAGAAGCTNTNTNNTCAN
ACACCATNTNATGGCCCCCATTCAGGACACTTCTGAGTACATCATTTATGNCATCTGTGG
CACTTGATGAAAAACCTTACAGTTGAGGCTTCTGGAACTTTTACCAGGCCTNTTACAGGAC
TNGCCCGGACNCCCTAAGCCNATTCACCTGGGGCGTTCTANGGTCCCACTCGNNCACTG
GNGAAAAATGGCTACTGTN

FIG. 15FF

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FIG. 15GG

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AGCGTGGTCCGCGCCGAGGTGTTTTATGACGGGCGCGGTGCTGAAGGGCAGGGAACAAC
TGATGGTGCTACTTTGAACTGCTTTTCTTTCTCTTTTGCACAAAGAGTCTCATGTCTGA
TATTTAGACATGATGAGCTTTGTGCAAAAGGGGAGCTGGCTACTTCTCGCTCTGCTTCATC
CCACTATTATTTTGGCACAACAGGAAGCTGTTGAAGGAGGATGTTCCCATCTTGGTCAGTC
CTATGCGGATAGAGATGTCTGGAAGCCAGAACCATGCCAAATATGTGTCTGTGACTCAGG
ATCCGTTCTCTGCGATGACATAATATGTGACGATCAAGAATTAGACTGCCCCAACCCAGAA
ATTCCATTGGAGAATGTTGTGAGTTTGGCCACAGCCTCCAACTGCTCCTACTCGCCCTCC
TAATGGTCAAGGACCTCAAGGCCCAAGGGAGATCCAGGCCCTCCTGGTATTCTGGGGAG
AAATGGTGACCCTGGTATTCCAGGACAACCAGGGTCCCCTGGTTCTCCTGGCCCCCTGGA
ATCNGGNGAATCATGCCCTACTGGTCTCAAACCTATTCTCCANATGATTCATATGATGTC
AAGTCTGGGATAGCNAGTANGGANGGACTCGCAGGCTATTCTGGACCANACCTGCCGGGG
GGCGGTTGAAAGCCCCGAATCTGCANANTNCTTCACTGGCGGGCGTCTGAGCTGCTTT
AAAAGGGCCATTCCNCTTTAGNGNGGGGGANTACAATTACTNGGCGGCGTTTTANANCG
CGNGNCTGGGAAAT

15_16476.edit

AGCGTGGTCCGCGCCGAGGTCCACATCGGCAGGGTCCGAGCCCTGGCCGCCATACTCGAA
CTGGAATCCATCGGTCACTCTCGCCGAACAGACATGCCCTCTTGTCTTGGGGTTCTTGC
TGATGTACCAGTTCTTCTGGGCCACACTGGGCTGAGTGGGGTACACGCAGGTCTCACCAGT
CTCCATGTTGCAGAAGACTTTGATGGCATCCAGGTTGCAGCCTTGGTTGGGGTCAATCCAG
TACTCTCCACTCTTCCAGTCAGAGTGGCACATCTTGAGGTCACGGCAGGTGCGGGCGGGGT
TCTTGGCGCTGCCCTCTGGGCTCCGGAATCTCGATCTGCTGCCCTCAGGCTCTTGAGGGTG
GTGTCCACCTCGAGGTACGGTCACCGTACCAACCACATTGGCATCATCAGCCCGGTAGTAGCGGC
CACCATCGTGAGCCTTCTCTTGAGTGGCTGGGGCAGGAACCTGAAGTCGAAACCAGCCCT
GGGAGGACCAGGGGGACCAANAGGTCCAGGAAGGGGCGGGGGGGACCAACAGGACCAG
CATCACCAAGTGCGACCCGCGAGAACCTGCCCGCCCGNCCGCTCGAA

16_16476.edit

TCGAGCGNCGCCCGGGCAGGTCTCCCGGTGGCACTGGTGATGCTGGTCTCTTGGTCCCC
CCGGCCCTCCTGGACCTCCTGGTCCCGCTGGTCTCCAGCGCTGGTTTCGACTTCAGCTTC
CTGCCCCAGCCACCTCAAGAGAAGGCTCAGCATGGTGGCCGCTACTACCGGGCTGATGAT
GCCAATGTGGTTCTGTGACCGTGACCTCGAGGTGGACACCACCTCAAGAGCCTGAGCCAG
CAGATCGAGAACATCCGGAGCCCAAGAGGGCAGCCGCAAGAACCCCGCCCGCACCTGCCGT
GACCTCAAGATGTGCCACTCTGACTGGAAGAGTGGAGAGTACTGGATTGACCCCAACCAA
GGCTGCAACCTGGATGCCATCAAGTCTTCTGCAACATGGAGACTGGTGAGACCTGCGTGT
ACCCCACTCAGCCCACTGTGCCCCAGAACAACTGGTACATCAGCAAGAACCCCAAGGACA
AGAGGCAATGTCTGTTCTGGCGGAGACCATGACCATGGATTCCAGTTCGAGTATGGCGGCC
AGGGCTCCACCTGCCGATGTGGACCTCCCGCCCGGACCAACCTT

FIG. 15HH

17_16477.edit

TNGAGCGGCGCCCGGGCAGGNTGNNAACGCTGGTCCTGCTGGTCCTCCTGGCAAGGCTG
GTGAAGATGGTCACCCTGGAAAACCCGGACGACCTGGTGAGAGAGGAGTTGTTGGACCAC
AGGGTGCTCGTGGTTTCCCTGGAACCTCTGGACTTCTGGCTTCAAAGGCAATTAGGGGACA
CAATGGTCTGGATGGATTGAAGGGACAGCCCGGTGCTCCTGGTGTGAAGGGTGAACCTGG
TGCCCTGGTGAAAAATGGAACCTCCAGGTCAAACAGGAGCCCGTGGGCTTCTGGTGAGAG
AGGACCGTGTGGTGCCCTGGCCCANACCTCGGCCGCGACCAAGCTAAGCCCCGAATTTCC
AGCACACTGGNGGCCGTTACTANTCGATCCGAGCTCGGTACCAAGCTTGGCGTAATCATG
GTCATAGCTGTTTCTGNGTGAAATTTGTTATCCGCTCACAATTTACACANCATACGAAGC
CGGAAAGCATAAAGTGTAAGCCTTGGGGTGCTAATGAGTGAGCTAACTCNCATTAAATT
GCGTTGCGCTCACTGCCCCGCTTTTCCANNNGGGAAACNTGGCNTNGCCNGCTTGCNTTAA
NTGAAATCCGCCNACCCCCGGGGAAAAGNCGGTTTGCNGTATTGGGGCNCTTTTCCCTTT
CCTCGGNTTACTTGANTTANTGGGCTTTGGNCGNTTCGGGTTGNGGGGANCGGTTCAACN
TCACNCAAAGGNGGNAANACGGTTTTCCANAATCCGGGGGNTANCCCAANGNAAAAC
ATNNGNCNAANGGGCT

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AGCGTGGTTNGCGGCCGAGGTCTGGGCCAGGGGCACCAACACGTCTCTCTCACCAGGAA
GCCCACGGGCTCCTGTTTGACCTGGAGTTCCATTTTACCAGGGGCACCAGGTTACCCTT
CACACCAGGAGCACCGGGCTGTCCCTTCAATCCATNCAGACCATTTGTCNCCCCTAATGCCT
TTGAAGCCAGGAAGTCCAGGAGTTCCAGGGAACACCGAGCACCTGTGGTCCAACAAC
TCCTCTCTCACCAGGTCTGTCGGGTTTTCCAGGGTGACCATCTTACCAGCCTTGCCAGGA
GGACCAGCAGGACCAGCGTTACCAACCTGCCCGGGCGGGCGGCTCGA

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TCGAGCGGCGCCCGGGCCAGGTCCAATTTCTCCCTGACGGTCCCACTTCTCTCCAATCTTGT
AGTTACACCAATTGTCAATGCCACCATCTAGATGAATCACAATCTGAAATGACCATTCCAAA
GCCTAAGCACTGGCACAACAGTTTAAAGCCTGATTCAGACATTCGTTCCCACTCATCTCCA
ACGGCATAATGGGAAACTGTGTAGCGGTCAAAGCAGAGTCAATCCGTAGGTTGGTTCAAG
CCTTCGTTGACAGAGTTGCCACGGTAACAACCTCTTCCGAACCTTATGCCTCTGCTGGTC
TTTCAGTGCTCCACTATGATGTTGTAGGTGGCACCTCTGGTGAGGACCTCGGCCGCGACC
ACGCT

22_16479.edit

ACCGTGGTCCCGGCCGAGGTCTCACCAGAGGTGCCACCTACAACATCATAGTGGAGCCA
CTGAAAGACCAGCAGAGGCATAAGGTTCCGGAAGAGGTTGTTACCGTGGGCAACTCTGTC
AACGAAGGCTTGAACCAACCTACGGATGACTCTGCTTTGACCCCTACACAGTTTCCCAT
ATGCCGTTGGAGATGAGTGGGAACCAATGCTGGAATCAGGCTTTAAACTGTTGTGCCAGTG
CTTAGGCTTTGGAAGTGGTCATTTCAAGATGTGATTCATCTAGATGGTGCCATGACAATGG
TGTGAACATAAGATTGGACAGAAGTGGGACCGTCAGGGAGAAAATGGACCTGCCCGGG
CCGGCCGCTCGA

FIG. 15II

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TCGAGCGNCGCCCCGGGCAGGTCCAGTAGTGCCTTCGGGACTGGGTTACCCCCAGGTCTG
CGGCAGTTGTACAGCGCCAGCCCCGCTGGCCTCCAAAGCATGTGCAGGAGCAAATGGCA
CCGAGATATTCCTTCTGCCACTGTTCTCCTACGTGGTATGTCTTCCCATCATCGTAACACGT
TGCCTCATGAGGGTCACACTTGAAATCTCCTTTTCCGTTCCCAAGACATGTGCAGCTCATTT
GGCTGGCTCTATAGTTTGGGGAAAGTTTGTGAAACTGTGCCACTGACCTTTACTTCCTCCT
TCTCTACTGGAGCTTTTCGTACCTTCCACTTCTGCTGTTGGTAAAAATGGTGGATCTTCTATCA
ATTCATTGACAGTACCCACTTCTCCCAAAACATCCAGGGAAATAGTGATTTCAGAGCGATT
AGGAGAACCAAATATGTTGGGCGAGAAATAAGGGGCTTTTCCACAGGTTTTCCTTTGGAGGA
AGATTTCACTGGTGACTTTAAAAGAACTCAACAGTGTCTTCATCCCCATAGCAAAAGAA
GAAACNGTAAATGATGGAANGCTTCTGGAGATGCCNNCATTAAAGGGACNCCAGAACTT
CACCATCTACAGGACCTACTTCAGTTTACANNAAGNCACATANTCTGACTCANAAAGGAC
CC.AAGTAGCNCCATGGNCAGCACTTINAGCCTTTCCCTGGGGAAAAANTTACNTTCTTAA
ANCCTNGGCCNNGACCCCTTAAGNCCAAATNTGGAAAAANTTCCNTNCNNCTGGGGGGG
NGTTCNACATGCNTTTNAAGGGCCCCAATTNCCCNT

25_16481.edit

TCGAGCGGCGCGCCCCGGGCAGGTGTGCGAGTCCAGCACGGGAGGCGTGGTCTTGTAGTTGT
TCTCCGGCTGCCCCATTGCTCTCCCACTCCACGGCGATGTGCTGGGATAGAAGCCTTTGAC
CAGGCAGGTACAGCTGACCTGGTTCTTGGTCACTCTCCTCCCGGATGGGGGCGAGGTGTAC
ACCTGTGGTTCTCGGGCTGCCCCCTTGGCTTTGGAGATGGTTTTCTCGATGGGGGCTGGGA
GGGCTTTGTTGGAGACCTTCCACTTGTACTCCTGCCATTAGCCAGTCTGGTGCAGGAC
GGTGAGGACGCTGACCACACGGTACGTGCTGTTGTACTGCTCCTCCCGCGGCTTTGTCTTG
GCATTATGCACCTCCACGGCGTCCACGTACCAGTTGAACCTGACCTCAGGCTCTTCGTGGC
TCACGTCCACCACCACGCAATGTAACCTCAGACCTCGGCGCGGACCAAGCT

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AGCGTGGTCCGCGCCCCAGGTCTCAGCTTACATGCGTGGTGGTGGACGTGACCCACGAAGA
CCCTGAGGTCAAGTTCAACTGGTACGTGACGGCGTGGAGGTGCATAATGCCAAGACAAA
GCCCCGGGAGGAGCAGTACAACAGCACCTACCGTGTGGTCAGCGTCTCACCCTCCTGCA
CCAGGACTGGCTGAATCGCAAGGAGTACAAGTCCAAGGTCTCCAACAAGCCCTCCACG
CCCCATCGAGAAACCAATCTCCAAGGCCAAAGGGCAAGCCCCGAGAACCACAGGTGTACA
CCCTGCCCCCATCCCGGGAGGAGATGACCAAGAACAGGTACGCTGACCTGCCTGGTCA
AAGGCTTCTATCCAGCGACATCGCCGTGGAGTGGAGAGCAATGGGCACCCGGAGAACA
ACTACAAGACCACGCCTCCCGTGGTGGACTCCGACACCTGCCCCGGGCGGCGCTCGA

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TCGAGCGGCGCGCCCCGGGCAGGTGAAATGGCTCCTCGCTGACCACCCCGGTGCTGGTGGTGG
GTACAGAGCTCCGATGGGTGAAACCAATTGACATAGAGACTGTCCCTGTCCAGGGTGTAGG
GGCCAGCTCAGTGATGCCGTGGGTACGCTGGCTCAGCTTCCAGTACAGCCGCTCTCTGTG
CAGTCCAGGGCTTTTGGGCTCAGGACCATGGGTGCAGACAGCATCCACTCTGGTGGCTGC
CCCATCCTTCTCAGGCCCTGACCAAGGTCACTCTGCAACCAGAGTACAGAGCTGACACT
GGTGTCTTGAACAAGGCCATAAGCAGACCTGAAAGACACCTCGGCGCGGACCAAGCT

FIG. 15JJ

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AGCGTGGTCCGCGCCGAGGTGTCCTTCAGGGTCTGCTTATGCCCTTGTTCAAGAACACCAG
TGTCAGCTCTCTGTACTCTGGTTGCAGACTGACCTTGCTCAGGCCTGAGAAGGATGGGGCA
GCCACCAGAGTGGATGCTGTCTGCACCCATCGTCTGACCCCAAAGCCCTGGACTGGACA
GAGAGCGGCTGTACTGGAAGCTGAGCCAGCTGACCCACGGCATCACTGAGCTGGGCCCCCT
ACACCTGGACAGGGACAGTCTCTATGTCAATGGTTTCACCCATCGGAGCTCTGTACCCAC
CACCAGCACCGGGGTGGTCAGCGAGGAGCCATTCAACCTGCCCGGGCGGCCGCTCGA

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AGCGTGGTCCGCGCCGAGGTCTGTCAGAGTGGCACTGGTAGAAGTTCCAGGAACCCTGA
ACTGTAAGGGTTCTTCATCAGTGCCAAACAGGATGACATGAAATGATGTACTCAGAAAGTGTC
CTGGAATGGGGCCCATGAGATGGTTGTCTGAGAGAGAGCTTCTTGCTCTACATTCCGGCGGG
TATGGTCTTGGCCTATGCCCTTATGGGGGTGGCCGTTGTGGGCGGTGTGGTCCGCCTAAAC
CATGTTCTCAAGATCAATTTGTTGCCCAACACTGGGTTGCTGACCAGAAGTGCCAGGAAG
CTGAATACCATTTCAGTGTCAATCCAGGGTGGGTGACGAAAGGGGTCTTTTGAAGTGTG
GAAGGAACATCCAAGATCTCTGGTCCATGAAGATTGGGGTGTGGAAGGGTTACCAGTTGG
GGAAGCTCGTCTGTCTTTTCTTCCAAATCAGGGGCTCGCTCTTCTGATTATCTTCAGGGC
AATGACATAAATTGTATATTCGGTCCCGGTTCCAGGCCAGTAATAGTAGCCTCTGTGACAC
CAGGGCGGGGGCCGAGGGACCCCTCTCTTGAAGAGAGACCAGCTTCTCATACTTGATGATGA
GNCCGGTAATCTGGCACCTGNGGTTGCATGATNCCACCAAGGAAATNGGNGGGGGNG
GACCTGCCCGGGGGCCGTTCTNAAAGCCCAATTCACACACTTGGNGGCGGTACTATGGATC
CCTCNGTCCAACCTTGGNGGAATATGGCATAACTTTT

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TCGAGCGGGCGGGCGGGCAGGTCTTTCAGCTTTCAGCAAGTGGGAACGTGTAATCCGTCT
CCACAGACAAGGGCAGGACTCGTTTGTACCGGTTGATGATAGAATGGGGTACTGATGCAA
CAGTTGGGTAGCCAATCTGCAGACAGACACTGCCAACAATGGGACACCCCTCCAGGAAGC
GAGAATGCAGAGTTTCTCTGTGATATCAAGCACTTCAGGTTGTAGATGCTGCCATTGTC
GAACACCTGCTGGATGACCAGCCCAAGGAGAAGGGGGAGATGTTGAGCATGTTACGCAG
CGTGGCTTCGCTGGCTCCCACTTGTCTCAGTCTTGATCAGACCTCGGGCGGGACCAAGCT

32_16485.edit

AGCGTGGTCCGCGCCGAGGTCTGTCTACAGTCTCAGGACTCTACTCCCTCAGCAGCGTG
GTGACCGTGCCCTCCAGCAACTTCGGCACCCAGACCTACACCTGCAACGTAGATCACAAGC
CCAGCAACACCAAGGTGGACAAGAGAGTTGAGCCCAAATCTTGTGACAAAACCTCACACAT
GCCCCCGTGGCCAGCACCTGAACTCTGGGGGGACCGTCAGTCTTCTTCCCCCGCAT
CCCCCTTCCAAACCTGCCCGGGGGGGGGCTCG

FIG. 15KK

000180 10895960

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00000000000000000000

39_16488.edit

41_16489.edit

42_16489.edit

45_16491.edir

TCGAGCGGCCGCCCGGGC.AGGTCCACATCGGC.AGGGTGGGAGCCCTGGCCGCC.ATACTCG
AACTGGAATCCATCGGTCA.TGCTCTCGCCGAACCAGACATGCCTCTTGTCTTGGGGTTCT
TGCTGATGTACCACTTCTTCTGGGCCACACTGGCCTGAGTGGGGTACACGC.AGGTCTCACC
AGTCTCCATGTTGCAGA.AG.ACTTTGATGGC.ATCC.AGGTTGCAGCCTTGGTTGGGGTCAATC
CAGT.ACTCTCCACTCTTCCAGTC.AGAGTGGCACATCTTGAGGTCACGGC.AGGTGGGGCGG
GGTTCTTGACCTCGGCCCGGACCACGCT

477.

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47_16492_edit

48_16492.edit

FIG. 15.MM

49_16493.edit

TCGAGCGGCCGCCCGGGCAGGTCACTTTTGGTTTTTGGTCATGTTGGTTGGTCAAAGATA
AAAATAAGTTTGAGAGATGAATGCAAAGGAAAAAATATTTCCAAAGTCCATGTGAAA
TTGTCTCCCATTTTTTGGCTTTTGAAGGGGTTTCAAGTTTGGTTGCTTGTCTGTTTCCGGGTT
GGGGGAAAAGTTGGTTGGTGGGAGGGAGCCAGGTTGGGATGGAGGGAGTTTACAGGAA
GCAGACAGGGCCAACGTCG

55_16496.edit

ACCGTGGTCGCGGCCGAGGTCTCACCAGAGGTGCCACCTACAACATCATAGTGGAGGCA
CTGAAAGACCAGCAGAGGCATAAGGTTGCGGAAGAGGTTGTTACCGTGGGCAACTCTGTC
AACGAAGGCTTGAACCAACCTACGGATGACTCGTGCTTTGACCCCTACACAGTTTCCCAT
ATGCCGTTGGAGATGAGTGGGAACGAATGTCTGAATCAGGCTTTAACTGTTGTGCCAGTG
CTTAGGCTTTGGAAGTGGTCATTTAGATGTGATTATCTAGATGGTGGCATGACAATGGT
GTGAATAACAAGATTGGAGAGAAGTGGGACCGTCAGGGAGAAAATGGACCTGCCCCGGGC
GGCCGCTCGA

56_16496.edit

TCGAGCGGCCGCCCGGCCAGGTCCAATTTCTCCCTGACGGTCCCACCTTCTCTCCAATCTTGT
AGTTCACACCAATTGTCAAGCACCATCTAGATGAATCACATCTGAAATGACCACTTCCAAA
GCCTAAGCACTGGCACAACAGTTTAAAGCCTGATTAGACATTCGTTCCCACTCATCTCCA
ACGCCATAATGGGAAAAGTGTGTACGGGTCAAAGCAGGATCATCCGTAGGTTGGTTCAAG
CCTTCGTTGACAGAGTTGCCACCGTAACAACCTCTCCCGAACCTTATGCCCTCTGCTGGTC
TTTCACTGCCCTCCACTATGATGTGTAGGTGGCACCTCTGGTGAGGACCTCGGCCCGGACC
ACGCT

59_16498.edit

TCGAGCGGCCGCCCGGCCAGGTCCACCATAAGTCTCTGATACAACCACGGATGACCTGTCA
GGACCAAGGTTGATTTCTTTCAATGGTCCGGTCTTCTCCTTGGGGGTCACCCGCACTCGATA
TCCAGTGAGCTGAACATTCGCTGCTGTCCACTGGCGGCTCAGGCTTGTGGGTGTGACCTGA
GTGAACCTCAGGTCACTTCTGTTGATCTGGACCTGCAGTTTACTGCACTGTGAACAGAGGCTGA
CTCTCTCCGCTTGGATTCTGAGCATAGACACTAACCACATACTCCACTGTGGGCTGCAAGC
CTTCAATAGTCATTTCTGTTGATCTGGACCTGCAGTTTACTGTTTGTGGTCTGCTGGTCCAT
TTTGGGAGTGGTGGTACTCTGTAAACAGTAACAGGGGAACCTGAAGGCAGCCACTTGAC
ACTAATGCTGTTGTCTCTGAACAACGCTCACTTGCATCTGGGATGGTTTGNCAATTTCTGTTT
GGTAATTAATGGAAATGGCTTGGTCTTGGCGGGCTGTCTCCACGGCCAGTGACAGCATA
CACAGNGATGCNATNATCAACTCCAAGTTAAGGCCCTGATGGTAACCTTTAACTTGCTCC
CAGCCAGNGAACTTCCGGACAGGCTATTTCTTCTGGTTTTCCGAAAGNGANCCTGGAAATN
TCTCCTTGGANCAGAAGGANCNTCCAAAACCTTGGCCCGGAACCCCTT

FIG. 15N

000T80" F0895960

at

60_16473.edit

AGCGTGGTCCGGGCGGAGGTCTGTCTGTCAGAGTGGCACTGGTAGAAGTTCCAGGAACCCTGA
ACTGTAAGGGTTCTTCATCAGTGCCAAACAGGATGACATGAAATGATGTACTCAGAAAGTGTG
CTGGAATGGGGCCCATGAGATGGTTGTCTGAGAGAGAGCTTCTTGTCTACATTGGGCGGG
TATGGTCTTGGCCTATGCCTTATGGGGGTGGCCGTTGTGGGCGGTGTGGTCCGCCTAAAAC
CATGTTCTCAAAGATCAATTTGTGCCCAACACTGGGTTGCTGACCAGAAGTGCCAGGAAG
CTGAATACCATTTCAGTGTCTATCCAGGGTGGGTGACGAAAGGGGTCTTTTGAAGTGTG
GAAGGAACATCCAAGATCTCTGGTCCAATGAAGATTGGGGTGTGGAAGGGTTACCAGTTGG
GGAAGCTCGTCTGTCTTTTTCTTCCAATCAGGGGCTCGCTCTTCTGATTATTCTTCAGGGC
AATGACATAAATTGTATATTCCGTTCCCGGTTCCAGGCCAGTAATAGTAGCCTCTTGTGAC
ACCAGGCGGGGCCCCANGGACCACTTCTCTGGGANGAGACCCAGCTTCTCATCTTGATGAT
GTAACCCGGTAATCCTGCACTGGGCGGCTGNCATGATACCANCAAGGAATTGGGTGNGGN
GGACCTGCCCCGGCGGCCCTCNA

60_16498.edit

AGCGTGGTCCGGGCGGAGGTCTGGGATGCTCTGCTGTCTCACAGTGAGATATTACAGGATC
ACTTACGGAGAAACAGGAGGAAATAGCCCTGTCCAGGAGTTCACTGTGCCTGGGAGCAAG
TCTACAGCTACCATCAGCGGCCTTAAACCTGGAGTTGATTATACCATCACTGTGTATGCTG
TCACTGGCGGTGGAGACAGCCCCGCAAGCAGCAAGCCAATTTCCATTAATTACCGAACAG
AAATTGACAAACCATCCCAGATGCAAGTGACCGATGTTACAGGACAACAGCAATTAGTGTCA
AGTGGCTGCCTTCAAGTTCCCGTGTACTGGTTACAGAGTAACCACCACTCCCAAAAATGG
ACCAGGACCAACAAAACTAAACTGCAGGTCCAGATCAAAACAGAAATGACTATTGAAG
GCTTGCAGCCCACAGTGGAGTATGTGCTTAGTGTCTATGCTCAGAATCCAAGCGGAGAGA
GTCAGCCTCTGCTTCACTGCACTAAACCACTATTCTGCACTCACTGACCTGAAGTTAC
TCAGGTCAACCCACAAGCTTGACCGGCGCAGTGGACACCACCAATGTTCACTCACTGGAT
ATCGAGTGGGGGTGACCCCGAAGGAGAGACCCCGACCCATGAAAGAAATCAACCTTGCT
CCTGACAGCTCATCCNCGGTGTATGAGGACTTATCGGGGACTGCCCCCGCNGGCCGNTC
GAAACGAATTNTGAAATTCCTTNCACCTGGCGGCGNTTCGAGCTTNTNTANANGCC
CCAATTCNCTNTAGNCGGTGCTN

61_16499.edit

AGCGTGGTCCGGGCGGAGGTCTNAGGA

62_16483.edit

TCGAGCGGCGGCGGCGGCGGAGGTCCACCCACCCCAATTCCTTGCTGGTATCATGGCAGCCGC
CACGTGCCAGGATTACCGGCTACATCATCAAGTATGAGAAGCCTGGGTCTCCTCCCAGAGA
AGTGGTCCCTCGGCGGCGGCGGCTGCTGTCTACAGAGGCTACTATTACTGGCCTGGAACCGGA
ACCGAATATACAAATTTATGTCAATGCGCTGAGAGATAATCAGAAGACCGAGCCCTGATTG
GAAGGAAAAACACACAGGAGCTTCCCAACTGGTAACCCCTCCACACCCCAATCTTTCATG
GACCAGAGATCTTGGATGTTCTTCCACAGTTCAAAAGACCCCTTTCGTACCCACCCTGG
GTATGACACTGGAAATGGTATTCAGCTTCTTGGCACTTCTGGTCAGCAACCCAGTGTGGG
CAACAAATGATCTTTCAGGAACAATGGTTTACGGCGGACCACACCGCCCAACACCGGGCACC
CCATAAGGNATAGGCCAAGACCATACCCCGCCGAATGTAGGACAAGAAGCTCTNTCTCA
ACAACCATCTCATGGCCCCCATTCAGGACACTTCTGAGTACATCAATTCATGTCTCCTG
GTGGGCACTTGATGAANAACCCCTACAGTTCAAGGTTCTTGGAACTTCTACCAGNGCCACT
TCTGACAGGANCTTGGGCGGACCCCT

FIG. 1500

63_16500.edit

AGCGTGGTTCGGGGCCGAGGTCCATTTTCTCCCTGACGGTCCCACTTCTCTCCAATCTTG TAG
TTCACACCATTGTCATGGCACCATCTAGATGAATCACATCTGAAATGACCACTTCCAAAGC
CTAAGCACTGGCACAACAGTTTAAAGCCTGATTCAGACATTCGTTCCCACTCATCTCCAAC
GGCATAATGGGAACTGTGTAGGGGTCAAAGCACGAGTCATCCGTAGGTTGGTTCAAGCC
TTCGTTGACAGAGTTGCCCACGGTAACAACCTCTTCCCGAACCTTATGCCTCTGCTGGTCTT
TCACTGCCTCCACTATGATGTTGTAGGTGGCACCTCTGGTGAGGACCTGCCCCGGGCGGCC
GCTCGA

64_16493.edit

AGCGTGGTTCGGGGCCGAGGTGTGCCCCAGACCAGGAATTCGGCTTCGACGTTGGCCCTGTC
TGCTTCCTGTAAACTCCCTCCATCCCAACCTGGCTCCCTCCCAACCAACCAACTTTCCCCC
AACCCGGAACAGACAAGCAACCCAACTGAACCCCTCAAAAGCCAAAAAATGGGAG
ACAATTCACATGGACTTTGGAAAAATTTTTTCTTTGCAATCATCTCTCAAACCTTAGTT
TTTATCTTTGACCAACCGAACATGACCAAAAAACCAAAAGTGACCTGCCCGGGCGGCCGCTC
GA

64_16500.edit

TCGAGCGGGCGGGCGGGCAGGTCTCACCAGAGGTGCCACCTACAACATCATAGTGGAGG
CACTGAAAGACCAGCAGAGGCATAAGCTTCGGGAAGAGGTTGTTACCGTGGGCAACTCTG
TCAACGAAGGCTTGAACCAACCTACCGATGACTCGTGCTTTGACCCCTACACAGTTTCCCA
TTATGCCGTTGGAGATGAGTGGGAACGAATGTCTGAATCAGGCTTTAAACTGTTGTGCCAG
TGCTTAGGCTTTGGAAAGTGGTCAATTCAGATGTGATTATCTAGATGGTGCCATGACAATG
GTGTCAACTACAAGATTGGAGAGAAGTGGGACCGTCAGGGAGAAAATGGACCTCGGCCG
CGACCACCT

FIG. 15PP

00535801.001000

16501.edit

TCGAGCGGGCCCGGGCAGGTACCGGGGTGGTCAGCGAGGAGCCATTCACACTGAACTT
CACCATCAACAACCTGCGGTATGAGGAGAACATGCAGCACCTGGCTCCAGGAAGTTCAA
CACCACGGAGAGGGTCCTTCAGGGCCTGCTCAGGTCCCTGTTCAAGAGCACCAGTGTGGC
CCTCTGTACTCTGGCTGCAGACTGACTTTGCTCAGACCTGAGAAACATGGGGCAGCCACTG
GAGTGGACGCCATCTGCACCCTCCGCCTTGATCCCACTGGTACTGGACTGGACANANAGCG
GCTATACTTGGGAGCTGANCCNAACCTTTGGCGNGACNCCNTT

16501.2.edit

GAGGACTGGCTCAGTCCCAGTATAGCCGCTCTCTGTCCAGTCCAGGACCAGTGGGATCAA
GGCGGAGGGTGCAGATGGCGTCCACTCCAGTGGCTGCCCCATGTTTCTCAAGTCTGAGCAA
AGNCAGTCTGCAGCCAGAGTACAGAGGGCCAACTGGTGGCTCTTGAACAGGGACCTGAG
CAGGCCCTGAAGGACCCTCTCCGTGGTGTGAACTTCTGGAGCCAGGGTGGTGCATGTTT
TCCTCATACCGCAGGTGTGATGGTGAAGTTTCAAGTGTGAATGGCTCCTCGCTGACCACCC

16502.1.edit

AGCGTGGTCCGGGGCGAGGTCCACCACACCCAAATTCCTTGGTGGTATCATGGCAGCCGCCA
CGTGCCAGGATTACCGGCTACATCATCAAGTATGAGAAGCCTGGGTCTCCTCCCAGAGAA
GTGGTCCCTCGGGCCCCCGCTGGTGTACAGAGGCTACTATTACTGGCCTGGAACCGGGAA
CCGAATATACAATTTATGTCAATGGCCTGAAGAATAATCAGAAAGAGCGAGCCCCTGATTGG
AAGGAAAAAGACAGACGAGCTTCCCCAACTGGTAACCCCTCCACACCCCAATCTTCAATGG
ACCANANANCTTGGATNGTCTTTCACTNGGTTNAAAAAACCTTTTCGGCCCCCCCCACCTTG
GGGATTAACTTGGGAAANGCGGATTNACCNNTCC

16502.2.edit

TCGAGCGGGCCCGGGCCAGGTCCCTGTACAGTGGCACTGGTAGAAGTTCCAGGAACCCT
GAACTGTAAGGGTTCTTCATCACTGCCAACAGGATGACATGAAATGATGTACTCAGAAGT
GTCTTGGAATGGGGCCCATGAGATGGTGTCTGAGAGAGACCTTCTTGTCTACATTCCGGC
GGGTATGGTCTTGGCCTATCCCTTATGGCGGTGGCCGTTGTGGGCGGTGTGGTCCGCCTAA
AACCATGTTCTCAAAGATCATTTGTTGCCCAACACTGGGTGCTGACCAGAAGTGCCAGG
AAGCTGAATACCATTTCCAGTGTATACCCAGCGNGGGTGACCAAAGGGGGTCTNTTNGA
CCTGGNGAAAGGAACCATCCAAAANCTCTGNCCTATG

FIG. 150Q

16503.1.edit

AGCGTGGNCGCGGCCGAGGTCTGAGGATGTAAACTCTTCCCAGGGGAAGGCTGAAGTGCT
GACCATGGTGCTACTGGGTCTTCTGAGTCAGATATGTGACTGATGNGAACTGAAGTAGGT
ACTGTAGATGGTGAAGTCTGGGTGTCCCTAAATGCTGCATCTCCAGAGCCTTCCATCATT
CCGTTTCTTCTTTGCTATGGGATGAGACACTGTTGAGTATTCTCTAAAGTCACCACTGAAA
TCTTCTCCAAAGGAAAACCTGTGGAAAAGCCCCTATTCTGCCCCATAATTGGTTCTCC
TAATCNCTCTGAAATCACTATTTCCCTGGAANGTTTGGGAAAAANNGGCNACCTGNCAN
TGGAAANTGGATANAAAAGATCCCACCATTTTACCCAACNAGCAGAAAGTGGGAANGGTAC
CGAAAAGCTCCAAGTAANAAAAAGGAGGGAAGTAAAGGTCAAGTGGGCACCAGTTTCAA
ACAAAACCTTTCCCCAACTATANAACCCA

16503.2.edit

AAGCGGCCGCCCCGGGCAGGNNCAGNAGTGCTTGGGACTGGGNTCACCCCCAGGTCTGC
GGCAGTTGTACAGCGCCAGCCCCGCTGGCCTCAAAGCATGTGCAGGAGCAAATGGCAC
CGAGATATTCCTTCTGCCACTGTTCTCTACGTGGTATGTCTTCCCATCATCGTAACACGTT
GCCTCATGAGGGTCACACTTGAAATCTCTTTCCGTTCCCAAGACATGTGCAGCTCATTG
GCTGGCTCTATAGTTTGGGGAAAGTTTGTGAAACTGTGCCACTGACCTTTACTTCTCTCT
CTCTACTGGAGCTTTCCGTACCTTCCACTTCTGCTGNTGGNAAAAAGGGNNGGAACNTCTTA
TCAATTTCAATTGGACAGTANCCCNCTTCTNCCCAAAACATNCAAGGGAAAAATATTGATTN
CNAGAGCGGATTAAGGAACAACCCNAATTATGGGGGCCAGAAATAAAGGGGGCTTTTCCA
CAGGTNTTTTCT

16504.1.edit

TCGAGCGGCCGCCCCGGGCAGGTCTGCAGGCTATTGTAAGTGTCTGAGCACATATGAGAT
AACCTGGGCCAAAGCTATGATGTTCCATACGTTAGGTGTATTAAATGCCACTTTTACTGCCA
TCTCAGTGGATGACAGCCTTCTCACTGACAGCAGAGATCTTCTCACTGTGCCAGTGGGCA
GGAGAAAGAGCATGCTGCCACTGGACCTCGGCCGCGACCACT

16504.2.edit

AGCGTGGTCCGCGGCCGAGGTCCAGTCCAGCATGCTCTTCTCTCTGCCC.ACTGGCACAGTG
AGGAAGATCTCTGCTGTCACTGACAAGGCTGTCACTCACTGAGATGGCAGTCAAAAAGTGC
ATTTAATACACCTAACGTATCGAACAATCATAGCTTGGCCCCAGGTTATCTCATATGTGCTCA
GAACACTTACAATAGCCTCCAGACCTGCCCGGGCGGCCGCTCGA

FIG. 15RR

75

0963314-001000

16509.1.edit

AGCGTGGTCCGGCCCGAGGTCTGGGATGCTCCTGCTGTACAGTGAGATATTACAGGATC
ACTTACGGAGAAAACAGGAGGAAATAGCCCTGTCCAGGAGTTCACTGTGCCTGGGAGCAAG
TCTACAGCTACCATCAGCGGCCTTAAACCTGGAGTTGATTATACCATCACTGTGTATGCTG
TCACTGGCCGTGGAGACAGCCCCGCAAGCAGCAAGCCAATTTCCATTAATTACCGAACAG
AAATTGACAAACCATCCCAGATGCAAGTGACCGATGTTTACAGACAACAGCATTAGTGTC
AGTGGCTGCCTTCAAGTTCCCTGTTACTGGTTACAGAAGTAACCACCCTCCCAAAAATG
GACCAGGACCAACAAAACCTAACTGACAGGTCCAGATCAAACAGAAAATGGACTATTG
AAGGCTTGACGCCACAGTGGAGTAAGTGGNTAGGNGTCTATGCTCAGAATCCCAAGCC
GGAGAAAGTCAGCCTTCTGGTTTAGACTGCAGTAACCAACATTGATCGCCCTAAAGGACT
GGNCATTCACTTGGATGGTGGATGTCCAATTC

16509.2.edit

TCGAGCGGGCCCGCCCGGCAGGTCTTGCAGCTCTGCAGNGTCTTCTTCACCATCAGGTGCA
GGGAATAGCTCATGGATTCCATCCTCAGGGCTCGAGTAGGTACCCCTGTACCTGGAAACTT
GCCCCTGTGGGCTTTCCCAAGCAATTTTGATGGAATCGACATCCACATCAGNGAATGCCAG
TCCTTTAGGGCGATCAATGTTGGTTACTGCAGTCTGAACCAGAGGCTGACTCTCTCCGCTT
GGATTCTGAGCATAGACACTAACACATACTCCACTGTGGGCTGCAAGCCTTCAATAGTCA
TTTCTGTTTGATCTGGACCTGCAGTTTAAAGTTTGGTGGTCTGNCCCATTTTTGGGAAG
TGGGGGCTTACTCTGTAACCACTAACAGGGGAACCTTGAAGGCAGCCACTTGACACTAATG
CTGTTGCTCTGAACATCCGCTCACTTGCATCTGGGATGGTTTGACAATTTCTCGTTCGGCA
AATTAATGGAAATGGCTTCTGCTTGGCGGGCTGNCTCCACGGGCCAGTGACAGCATA
C

16510.1.edit

TCGAGCGGGCCCGCCCGGCAGGTCTTGCAGCTCTGCAGTGTCTTCTTCACCATCAGGTGCA
GGGAATAGCTCATGGATTCCATCCTCAGGGCTCGAGTAGGTACCCCTGTACCTGGAAACTT
GCCCCTGTGGGCTTTCCCAAGCAATTTTGATGGAATCGACATCCACATCAGTGAATGCCAG
TCCTTTAGGGCGATCAATGTTGGTTACTGCAGTCTGAACCAGAGGCTGACTCTCTCCGCTT
GGATTCTGAGCATAGACACTAACACATACTCCACTGTGGGCTGCAAGCCTTCAATAGTCA
TTTCTGTTTGATCTGGACCTGCAGTTTAAAGTTTGGTGGTCTGNCCCATTTTTGGGGAA
GGCGTGGTTACTCTTGTAAACAGTAACAGGGGAACCTTGAAGGCAGCCACTTGACACTAATG
CTGGTGGCCTGAACATCCGCTCACTTGCATCTGGGATGGTTTGGTCAATTTCTGTTCCGTAAT
TAATGGGAAATGGCTTACTGGCTTGGCGGGCTGTCTCCACGGNCAGTGACAAGCATAC
ACAGGNGATGGGTATAATCAACTCCAGGTTAAGGCCNCTGATGGTA

16510.2.edit

AGCGTGGTCCGGCCCGAGGTCTGGGATGCTCCTGCTGTACAGTGAGATATTACAGGATC
ACTTACGGAGAAAACAGGAGGAAATAGCCCTGTCCAGGAGTTCACTGTGCCTGGGAGCAAG
TCTACAGCTACCATCAGCGGCCTTAAACCTGGAGTTGATTATACCATCACTGTGTATGCTG
TCACTGGCCGTGGAGACAGCCCCGCAAGCAGTAAGCCAATTTCCATTAATTACCGAACAG
AAATTGACAAACCATCCCAGATGCAAGTGACCGATGTTTACAGACAACAGCATTAGTGTC
AGTGGCTGCCTTCAAGTTCCCTGTTACTGGTTACAGAGTAACCACCCTCCCAAAAATGG
GACCAGGACCAACAAAACCTAACTGCANCGTCCAGATCAAACAGAAAATGACTATTG
AAGCCTTGACGCCACAGTGGAGTAAGTGGGTTAGTGTCTATGCTCAGAAATNCCAAGCGG
AGAGAGTCAGCCTCTGGTTCAGACT

FIG. 15UU

09636801.081000

16511.1.edit

TCGAGCGGGCCCGGGCAGGTCAGCGCTCTCAGGACGTCACCACCATGGCCTGGGCTCT
GCTCCTCCTCACCCTCCTCACTCAGGGGCACAGGGTCTGGGCCCAGTCTGCCCTGACTCAG
CCTCCCTCCGCGTCCGGGTCTCCTGGACAGTCAGTCACCATCTCCTGCACTGGAACCAGCA
GTGACGTTGGTGCTTATGAATTTGTCTCCTGGTACCAACAACACCCAGGCAAGGCCCCAA
ATCATGATTTCTGAGGTCATAAGCGGCCCTCAGGGGTCCCTGATCGCTTCTCTGGCTCC
AAGTCTGGCAACACGGCCTCCCTGACCGTCTCTGGGCTCCANGCTGAGGATGANGCTGATT
ATTACTGGAAGCTCATATGCAGGCAACAACAATTGGGTGTTCCGGCGGAAGGGACCAAGCT
GACCGTNTAAGGTCAAGCCCAAGGCTTGCCCCCTCGGTCACTCTGTTCCACCCCTCCTCT
GAAGAAGCTTTCAAGCCAACAANGNCACACTGGGTGTGTCTCATAAGTGGACTTTCTACCC

16511.2.edit

AGCGTGGTTCGGGGCCGAGGTCTGTAGCTTCTGTGGGACTTCCACTGCTCAGGCGTCAGGCT
CAGGTAGCTGCTGGCCGCGTACTTGTGTGTGCTTGTNTGGAGGGTGTGGTGGTCTCCACT
CCCGCCTTGACGGGGCTGCTATCTGCCCTTCCAGGCCACTGTCACGGCTCCCGGGTAGAAGT
CACTTATGAGACACACCAGTGTGGCCTTGTGGCTTGAAGCTCCTCAGAGGAGGGTGGGA
ACAGAGTGACCGAGGGGGCCAGCCTTGGGCTGACCTAGGACGGTCAGCTTGGTCCCTCCGC
CGAACACCCAAATTGTGTGTGCTGCTATGAGCTGCAGTAATAATCAGCCTCATCCTCAGC
CTGGAGCCCAGAGACNGTCAAGCGAGGCGCGTGTGTTGCCAAGACTTGGGAAGCCAGANAAG
CGATCAGGGACCCCTGAGGGGCGCTTACNGACCTCAAAAAATCATGAATTTGGGGGGCC
TTTGCTGGGNGTTGGTTGGTNACCAAGAAAAACAAAATTCATAAAGCACCAACGTCCT
GCTGGTTTCCAGTGCANGAANATGGTCAACTGAANTGTCC

16512.1.edit

AGCGTGGTTCGGGGCCGAGGTCCAGCATCAGGAGCCCCGCTTGCCGGCTCTGGTCAATCGCC
TTTCTTTTGTGGCCTGAACCGATGTCATCAATTCGCAAGTAGCAGAACTGCCGTCTCCACTG
CTGTCTTATAAGTCTGCAGCTTCACAGGCAATGGCTCCCATATGCCCAGTTCCTTCATGTCC
ACCAAAGTACCCGTCTCACCATTACACCCCAAGGTCTCACAGTTCTCCTGGGTGTGCTTGG
CCCGAAGGGAGGTAAGTANACGGATGGTCTGCTCCACAGTTCTGGATCAGGGTACGAG
GAATGACCTCTAGGGCCTCGGCNACAAACCCCTGTATGGACCTGCCCGGGCGGGCCGCTC
GA

16512.2.edit

TCGAGCGGGCCCGGGCAGGTCCATACAGGGCTGTTGCCAGGCCCTAGAGGNCATTCC
TTGTACCCCTGATCCAGAACTGTGGGACCGACCATCCGTCTACTTACCTCCCTTCGGGGCC
AAGCACACCCAGGAGAACTCTGAGACCTGGCGTGTAAATGGNGAGACGGGTACTTTGGTG
GACATGAAGGAACCTGGCCATATGGGAGCCATTGGCTGNGAACCTGCANACTTATAAGACA
GCAGTGGAGACGGCAGTTCTGCTACTCCCAATTGATGACATCGTTTCAGGCCACAAAAAG
AAAGGCGATGACCANAGCCCGGCAAGGCCCGGCTTCTGATGCTGGACCTCGGCCCGCGAC
CATGCTT

FIG. 15VV

09636301.081000

16514.1.edit

AGCGTGGTCCGCGCCGAGGTCCACTAGAGGTCTGTGTGCCATTGCCAGGCAGAGTCTCTG
CGTTACAACTCCTAGGAGGGCTTGCTGTGCGGAGGGCTGCTATGGTGTGCTGCGGTTCA
TCATGGAGAGTGGGGCCAAAGGCTGCGAGGTTGTGGTGTCTGGGAACTCCGAGGACAGA
GGGCTAAATCCATGAAGTTTGTGGATGGCCTGATGATCCACAGCGGAGACCCTGTAACTA
CTACGTTGACACTGCTGTGCGCCACGTGTTGCTCANACAGGGTGTGCTGGGCATCAAGGTG
AAGATCATGCTGCCCTGGGACCCANCTGGCAAAAATGGCCCTTAAAAACCCCTTGCCNTG
ACCACGTGAACCATTGTGNGAACCCCAAGATGAANATACTTGCCACCACCCCCCATTC

16514.2.edit

TCGAGCGGCGCCCGGGCAGGTCTGCCAAGGAGACCCTGTTATGCTGTGGGGACTGGCTG
GGGCATGGCAGGCGGCTCTGGCTTCCCACCCTTCTGTTCTGAGATGGGGGTGGTGGGCAGT
ATCTCATCTTTGGGTTCCACAATGCTCAGTGGTCAGGCAGGGGCTTCTTAGGGCCAACT
TACCAGTTGGGTCCCAGGGCAGCATGATCTTACCTTGATGCCAGCACACCCTGTCTGAG
CAACACGTGGCGCACAGCAGTGTCAACGTAGTAGTTAACAGGGTCTCCGCTGTGGATCAT
CAGGCCATCCACAACTTTCATGGATTAGCCCTCTGTCTCGGAGTTTCCCAAAACACCAC
AACCTCGCCAGCCTTTGGGCCCCACTTCTCATGAATGAAACCGCAGCACACCAATTANCAA
GGCCCTTCCGCACAGGNAACCCCTTCTGAAGGAGTTTGTAAACGCCAAAAAATCTTGCCT
GGGGCAATGGGCACACAGACCTNTANTNGGACCTTGGNCCGCGAACCCACCGCTT

16515.1.edit

AGCGTGGTCCGCGCCGAGGTCTGCGCCCTCTGSCAAGGCTGCTGAAGATGGTCAACCCTGG
AAAACCCCGACGACCTGCTGAGAGAGGAGTTGTTGGACCACAGGGTGCTCGTGGTTTCCC
TGGAACCTCCTGGAATTCCTGGCTTCAAAGGCAATTAGGGGACACAATGGTCTGGATGGATTG
AAGGCACAGCCCGGTGCTCCTGGTGTGAAGGGTGAACCTGCGCCCCCTGGTGAAAATGGA
ACTCCAGGTCAAACAGGAGCCCGGCGCTTCTGCGNAGACAGGACGTGTTGGTCCCCCT
GGCCCANACCTGCCCCGGCCCGCCGCTTCAAAGCCGAAATCCAGNACACTGGCGGCGGNT
ACTANTGGAATCCGAACCTTCCGTACCAAAAGCTTGGCCGTAAATCATGGCCATAGCTTGTTC
CTGGGNGGCAAAATGGTATTCGCTTCCAAATCCACACAACATACCGAACC CGGAAAGCA
TTAAAGTGTA AAAAGCCCTGGGGGGGCTAAATGANGTGAGCNTAACTCNCAATTAATGG
CGTTGCGCTTCACTGCCCCGCTTTCCAGTCCCGGNA

16515.2.edit

TCGATCGGCGCCCGGGCAGGTCTGCGCCAGGGGCCACCAACACGTCTCTCTCACCAGGA
AGCCCCAGGGCTCTGTTTACCTGGAGTTCCAATTTACCAGGGGCACCAAGGTTACCCCT
TCACACCAGGAGCACCGGGCTGTCCCTTCAATCCATCCAGACCAATTGTGNCCTTAATGCC
TTTGAAGCCAGGAAGTCCAGGATTCAGGGAAACCACGAGCACCCCTGTGGTCCAACAAC
TCCTCTCTCACCAGGTGCTCGGGGTTTCCAGGGTGACCATCTTACCAGCCTTGCCAGGA
GGGCCAGACCTCGGCGCGGACCAAGCT

FIG. 15WW

09636301.061000

46

16516.1.edit

ANCGTGGTCGCGGCCGAGGTCCTCACCAGAGGTGNCACCTACAACATCATAGTGGAGGCA
CTGAAAGACCANCAGAGGCATAAGGTTCCGGGAAGAGG

16516.2.edit

TCGAGCGGCCGCGGCCGAGGTCCATTTTCTCCCTGACGGTCCCACTTCTCTCCAATCTTGT
AGTTCACACCAATTGTCATGGCACCATCTAGATGAATCACATCTGAAATGACCACTTCCAAA
GCCTAAGCACTGGCACAACAGTTTAAAGCCTGATTGAGACATTCGTTCCCACTCATCTCCA
ACGGCATAATGGGAACTGTGTAGGGGTCAAAGCAGGATCATCCGTAGGTTGGTTCAAG
CCTTCGTTGACAGAGTTGTCCACGGTAACAACCTTCTCCGAACCTTATGCCTCTGCTGGTC
TTTCAGTGCCTCCACTATGATGTTGTAGGTGGACCTCTGGTGAGGACCTCNGNCCNGAAC
AACGCTTAAGCCCGNATTCTGCAGAATAATCCCATCACACTTGGCGGCCGCTTCGANCATG
CATCNTAAAAGGGGCCCAATTTCCCCCTTATAAGNGAANCCGTATTNNCCAATTTCACTG
GNCCCGCCGNTTTTACAAACGNCGGTGAACTGGGGAAAAACCCTGGCGGTTACCCAATT
TAATCGCCNTTGGCAGCACAAATCCCCCTTTTCGNCCANCNTGGGCGTAAATAACCGAAAA

16517.1.edit

ANCGNGGTGCGCGGCCGANGTNTTTTCTTNTTTTT

16518.1.edit

ACCGTGGTCGCGGCCGAGGTCTGAGGTTACATGCGTGCTGGTGACGTGAGCCACGAAGA
CCCTGAGGTCAAGTTCAACTCGTACGTGGACGCCGTGGACGTGCATAATGCCAAGACAAA
GCCGCGGAGGAGCACTACAACACCAAGTACCGGGNGGTCAGCGTCTCACCGTCTCTGCA
CCAGAATTGGTTGAATGGCAAGGAGTACAAGNGCAAGGTTTCCAACAAGCCNTCCCAGC
CCCCNTCGAAAAAACCAATTTCCAAAGCCAAAGGGCAGCCCCGAGAACCACAGGTGTACAC
CCTGCCCCCATCCCGGAGGAAAAGANCAANAACCGGTTACGCCTTAACTTGCTTGGTC
NAANGCTTTTATCCCAACGNACTTCCCCNTGGAANTGGGAAAAACCAATGGGGCCAANC
CGAAAAACAATTACAANAACCC

16518.2.edit

TCGACCGGCCGCGGCCGAGGTGTCCGACTCCAGCACGGGAGGCGTGGTCTTGTAGTTGT
TCTCCGGCTGCCCAATTGCTCTCCACTCCACGGGATGTCCCTGGGATAGAAGCCTTTGAC
CAGGCAGGTGAGGCTGACCTGGTTCTTGGTCATCTCTCCCGGGATGGGGGCAGGGTGAA
CACCTGGGGTTCTCGGGGCTTCCCTTTGGTTTGAANATGCTTTCTCGATGGGGGCTGG
AAGGGCTTTGTTGNAAACCTTCCACTTGACTCTTCCCATTCACCCAGNCCTGGNCCAGGA
CGNGAGGACNCTNACCACACGGAACCGGGCTGGTGGACTCTCC

FIG. 15XX

16519.1.edit

AGCGTGGTGGCGGACGANGTCCTGTGACAGTGGNACTGGTAGAAGTTCCANGAACCCCTGA
ACTGTAAGGGTTCTTCATCAGTGCCAAACAGGATGACATGAAATGATGTACTCAGAAGNGN
CCTGGAATGGGCCCCCATGANATGGTTGCC

16519.2.edit

TCGAGCGGCGCGCGGGCAGGTCCACCACACCCAATTCCTTGCTGGTATCATGGCAGCCGC
CACGTGCCAGGATTACCGGCTACATCATCAAGTATGAGAAGCCTGGGTCTCCTCCCAGAGA
AGTGGTCCCTCGGCCCCCGCCTGGTGTACAGAGGCTACTATTACTGGCCTGGAACCGGGA
ACCGAATATACAAATTTATGTCAATGCCCTGAAGAATAATCAGAAGAGCGAGCCCCTGATTG
GAAGGAAAAAGACAGACGAGCTTCCCCAACTGGTAACCCCTTCCACACCCCAATCTTCATG
GACCAGAGATCTTGGATGTTCTTCCACAGTTCAAAAGACCCCTTTGGGCACCCCCCTGG
GTATGAACCTGGGAAAAANGGNANTTAANCTTTCTGGCA

16520.1.edit

AGCGTGGTGGCGGCGGAGGTCTGGGATGCTCCTGTGTACAGTGAGATATTACAGGATC
ACTTACGGAGAAACAGGAGGAAATAGCCCTGTCCAGGAGTTCACTGTGCCTGGGAGCAAG
TCTACAGCTACCATCAGCGCCCTTAACTTGGAGTTGATTATACCATCACTGTGTATGCTG
TCACTGGCCGTGGAGACAGCCCCGGCAAGGACCAAGCCAAATTTCCATTAAATTACCGAACAG
AAATTGACAAACCATCCCAAGATGCCAAGTGACCGATGTTTCAAGGACAACAGCATTAGTGTA
AGTGGCTGCCTTCAAGGTNCCCTGCTACTGGGTACAGANTAAACCACCACTCCCAAAAATG
GACCAGGAACCACAAAAACTTAACTGCAGGGTCCAGATCAAAAACAGAAATGACTATTGA
ANGCTTGCAGCCCAAGTGGGAGTATGNGGCTAGTGNCTATGCTTCAGAATCCAAGCGGA
AAAANGTCAAGCCTTNTGGGTTCAA

16520.2.edit

TCGAGCGGCGCGCGCGGGCAGGTCTGGTGGGCTCTGGAGTGTCTTCTTACCATCAGGTGCA
GGGAATAGCTCATGGATTCCAATGCTCAGGCTCGAGTAGGTACCCCTGTACCTGGAAACTT
GCCCCGTGGGCTTTCCCAAGCAATTTGATGGAATCGACATCCACATCAGTGAATGCCAG
TCCTTACGGCGGATCAATGTTGGTTACTGCAGNCTGAACCAGAGGCTGACTCTCTCCGCTT
GGATTCTGACCATAGACACTAACCACATACTCCACTGTGGGCTGCAANCTTCAATAANN
ATTTCTGTTTGATCTGGACC

16521.2.edit

TCGAGCGGCGCGCGCGGGCAGGTCTGGTGGGCTCTGGCACACGGCACATGGGGGNGTTGNT
CTNATCCAGCTGCCCCAGCCCCCAATGGCGAGTTGACAAGGTGTGCAGCAATGACAACAA
NAGCTTGGACTCTTCTGCCACTTCTTGGCCACAAAGTGCACCCCTGGAGGGCACCAAGAAG
GGCCACAAGCTCCACCTGGACTACATCGGGCCCTTGCAAATACATCCCCCTTGCCTGGACT
CTGAGCTGACCGAATCCCCCTTGGGCAATGGGGACTCGCTCAAGAACCCTCCTGGCACCC
TTGTATGANAGCGGATGAACACACNACCC

FIG. 15YY

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16522.1.edit

AGCGTGGTTCGCGGCCGAGGTCTGTCTACAGTCTCAGGACTCTACTCCCTCAGCAGCGTG
GTGACCGTGCCCTCCAGCAACTTCGGCACCCAGACCTACACCTGCAACGTAGATCACAAGC
CCAGCAACACCAAGGTGGACAAGAGAGTTGAGCCCAAATCTTGTGACAAAACCTCACACAT
GCCCACCGTGCCGAGC.ACTGAACTCCTGGGGGGACCGTCAGTCTTCTCTTCCCCCGCAT
CCCCCTTCCAAACCTGCCCCGGGCGGCGCTCGAAAGCCGAATTCAGCACACTGGCGGCGG
GTACTAGTGGANCCNAACTTGGNANCCAACCTGGNGGAANTAATGGGCATAANCTGTTTC
TGGGGGGAAATTGGTATCCNGTTTACAATTCCCNCAACAACATACGAGCCGGAAGCATAAA
AGNGTAAAAGCCTGGGGGNGGCCTANTGAAGTGAAGCTAAACTCACATTAATTNGCGTTG
CCGCTCACTGGCCCGCTTTTCCAGC

16522.2.edit

TCGAGCGGCCCGCCCGGGCAGGTTTGAAGGGGGATGCGGGGGGAAGAGGAAGACTGACGG
TCCCCCAGGAGTTCAGGTGCTGGGCACGGTGGGCATGTGTGAGTTTGTACAAGATTG
GGCTCAACTCTCTTGTCCACCTTGGTGTGCTGGGCTTGTGATCTACGTTGCAGGTGTAGGT
CTGGGNGCCGAAGTTGCTGGAGCGCACGGTACCACGCTGCTGAGGGAGTAGAGTCTGA
GGAAGTGTANGACAGACCTCGGCCGNGACCACGCTAAGCCGAATTCTGCAGATATCCATCA
CACTGGCGGCCGCTCCGAGCATGCAATTTAGAGG

16523.1.edit

AGCGTGGNCGCGGACGANGACAACAACCCC

16523.2.edit

TCGACCGGCCCGCCCGGGCAGGNCCACATCGGCAGGGTTCGGAGCCCTGGCCGCCATACTCG
AACTGGAAATCCATCGGTCAATGCTCTTGGCGAACCAGACATGCCTCTTGTCTTGGGGTTCTT
GCTGATGNACCAAGTTCTTCTGGGCCACACTGGGCTGAGTGGGGTACACGCAGGTCTCACCA
GTCTCCATGTTGCAGAAGACTTTGATGGCATCCAGGTTGCAGCCTTGGTTGGGGTCAATCC
AGTACTCTCCACTCTTCCAGTCAGAGTGGCAGATCTTGACGTCACGGCAGGTGCGGGCGGG
GTTCTTGACCT

16524.1.edit

AGCGTGGTTCGCGGCCGAGGTCCAGCCTGCAGATAANGGTGAAGGTGGTCCCCCGGACTT
CCAGGTATACCTGGACCTCGTGGTAGCCCTGGTGAGAGAGGTGAAACTGGCCCTCCAGGA
CCTGCTGGTTTCCCTGGTGCTCCTGGACAGAAATGGTGAACCTGGNGGTAAAGGAGAAAGA
GGGGCTCCGGNTGANAAAGGTGAAGGAGGCCCTCCTGNATTGGCAGGGGCCCCANGACTT
AGAGGTGGAGCTGGCCCCCTGCCCCGAAGGAGGAAAGGGTGCTGCTGGTCTCCTGGG
CCACCTGG

FIG. 15ZZ

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16524.2.edit

TCGAGCGGCCCGCCCGGGCAGGTCTCGGGCCAGGAGGACCAATAGGACCAGTAGGACCCCTT
GGGCCATCTTTCCCTGGGACACCATCAGCACCTGGACCGCCTGGTTCACCCTTGTCACCCTT
TGGACCAGGACTTCCAAGACCTCCTCTTTCTCCAGGCATTCTTGACAGACCAGGAGTACCA
NCAGCACCAGGTGGCCCAGGAGGACCAGCAGCACCTTTCCTCCTTCGGGACCAGGGGGA
CCAGCTCCACCTCTAAGTCCTGGGGCCCTGCCAATCCAGGAGGGCCTCCTTCACCTTTCTC
ACCCGGAGCCCTCTTTCT

16526.1.edit

TCGAGCGGCCCGCCCGGGCAGGTCCACCGGGATATTCGGGGGTCTGGCAGGAATGGGAGGC
ATCCAGAACGAGAAGGAGACCATGCAAAAGCCTGAACGACCGCCTGGCCTCTTACCTGGAC
AGAGTGAGGAGCCTGGAGACCGACAACCGGAGGCTGGAGAGCAAAATCCGGGAGCACTT
GGAGAAGAAGGGACCCCAGGTCAGAGACTGGAGCCATTACTTCAAGATCATCGAGGACCT
GAGGGCTCANATCTTCGCAAAATACTGCGNGACAATGCCCG

16526.2.edit

ATGCGNGGTCTCGGGCCCGANGACCANCTCTGGCTCATCTTGACTCTAAAGNCNTCACCAG
NANTACGGNCATTGCCAATCTCCAGAACCATGCGGGCATTGTCCGCANTATTTGCCAAG
ATCTGACCCCTCAGGNCCTCGATGATCTTGAAGTAANGGCTCCAGTCTCTGACCTGGGGTC
CCTTCTTCTCCAAGTGCTCCCGGATTTTCTCTCCAGCCTCCGGTCTCGGTCTCCAAGNCT
TCTCACTCTGTCCAGCAAAAGAGGCCAGCGGNGCATCAGGGCTTTTGATGGACT

16527.1.edit

AGCGTGGTCTCGGGCCCGAGGTTCTACAAGCTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT
TT

16527.2.edit

TCGAGCGGCCCGCCCGGGCAGGTCTGCCAACACCAAGATTGGCCCCCGCCGCATCCACACA
GTNGTGTGCGGGGAGGTAAACAAGAAAATACCGTGCCCTGAGGNTGGACGNGGGGAATTC
TCCTGGGGCTCAGAGTGTGTACTCGTAAAACAAGGATCATCGATGTTGTCTACAATGCAT
CTAATAACGAGCTGTTCTGTACCAAGACCTGGTGAAGAATTGCATCGTGCTCATNGACA
GCACACCGTACCGACAGTGGGTACCGAAGTCCCCTATGCNCCT

FIG. 15.44A

000T80" T0899260

16523.1.edit

TCGAGCGGCCGCGCCGGGCAGGTCCACCACACCCAATTCCTTGCTGGTATCATGGCAGCCGC
CACGTGCCAGGATTACCGGCTACATCAAGTATGAGAAGCCTGGGTCTCCTCCCAGAGA
AGTGGTCCCTCGGCCCCGCTGGTGTACAGAGGCTACTATTACTGGCCTGGAACCGGGA
ACCGAATATACAATTTATGTCAATGCCCTGAAG

16523.2.edit

AGCGTGNTCNCGGCCGAGGATGGGGAAGCTCGNCTGTCTTTTCTTCCAATCAGGGGCTN
NNTCTTCTGATTATTCTTCAGGGCAANGACATAAATTGTATATTCGGNTCCCGGTTCCAGN
CCAGTAATAGTAGCCTCTGTGACACCAGGGCGGGGCGAGGGACCACTTCTCTGGGAGGA
GACCCAGGCTTCTCATACTTGATGATGAAGCCGGTAATCCTGGCACGTGGGCGGCTGCCAT
GATACCACCAANGAATTGGGTGTGGTGGACCTGCCCCGGGCGGGCGCTCGAAAANCCGAA
TTCNTGCAAGAATATCCATCACACTTGGGCGGGCGGNTCGAACCATGCATCNTAAAAGGG
CCCCAATTTCCCCCTATTAGCNGAAGCCNCATTAAACAAATTCCACTTGG

16529.1.edit

TCGAGCGGCCGCGCCGGGCAGGTCTCGCGTCCGACTGGTGATGCTGGTCTGTTCGTCCCC
CCGGCCCTCCTGGACCTCCTGGTCCCCCTGGTCTCCAGCGCTGGTTTCGACTTCACCTTC
CTGCCCCAGCCACCTCAAGAGAAAGGCTACGATGGTGGCCGCTACTACCGGGCTGATGAT
GCCAATGTGGTTCTGTGACCGTGACCTCGAGGTGGACACCACCTCAAGAGCCTTGAGCCA
GCAGAAATCGAAAACATTCCGAACCCAAGAAAGGGCAAGCCCGCAAGAGAAACCCCGCCCGC
ACCTGGCCGNGAACCTCCAAGAAAGTGGCCACNTCTTGACTGGGAAAAAAGGGGAAANT
ACTTGGAAATGGAC

16529.2.edit

AGCGTGGTCCCGCCGAGGTCCACATCGGCAGGGTCCGAGCCCTGGCCGCCATACTCGAA
CTGGAATCCATCGGTCAATGCTCTCGCCGAACAGACATGCCTCTTGCTCTTGGGGTTCTTGC
TGATGTACCAGTTCTTCTGGCCACACTGGGCTGAGTGGGGTACACGCAGGTCTCACCAGT
CTCAATGTTCCAGAAGACTTTCATGGCATCCAGGTGACCCCTTGGTTGGGGTCAATCCAG
TACTCTCACTCTTCCACTCAGAAGTGGCACATCTTGAGGTACGGCAGGGTGGGGCGGG
GTTCTTGGCGGCTGCCCTTCTGGGCTCCCCGAATGTTCTNNGAACTTGCTGG

FIG. 15BBB

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134

01_16558.3.edit

AGCGTGGTCCGCGGCCGAGGTGAGCCACAGGTGACCGGGGCTGAAGCTGGGGCTGCTGGNC
CTGCTGGTCTG

02_16558.4.edit

CAGCNGCTCCNACGGGGGCTGNGGGACCAACAACACCGTTTTACCCCTTAGGCCCTTTGGC
TCCTCTTTCTCCTTTAGCACCAGGTTGACCAGCAGCNCANCAGGACCAGCAAATCCATTG
GGGCCAGCAGGACCGACCTCACCAGTTACAGGGCTTCCCCGAGGACCAGCAGGACCA
GCAGGACCAGCAGCCCCAGCTTCGCCCCGGTCACCTGTGGCTCACCTCGGCCGCGACCAGC
CT

03_16535.1.edit

TCGAGCGGTCCGCCCCGGCAGGTCCACCGGGATAGCCGGGGGTCTGGCAGGAATGGGAGGC
ATCCAGAACGAGAAGGAGACCATGCCAAAGCCTGAACGACCGCCTGGCCTTTACCTGGAC
AGAGTGAGGAGCCTGGAGACCGANAACCGGAGGCTGGANAGCAAAATCCGGGAGCACTT
GGAGAAGAAGGGACCCACGTCAAGAGACTGGAGCCATTACTTCAAGATCATCGAGGGA
CTTGGAGG

04_16535.2.edit

AGCGNNGTCCGCGGCCGAGGTCCAGCTCTGTCTCATACCTGACTCTAAAGTCATCAGCAGCA
AGACCGGCATTGTCAATCTGCAGAACGATCGGGGCAATTGTCCGCAGTATTTGCGAAGATCT
GAGCCCTCAGGTCTCGATGATCTTGAAGTAATGGCTCCAGTCTCTGACCTGGGGTCCCTT
CTTCTCCAAGTGCTCCCGGAATTTGCTCTCCAGCCTCCGGTTCTCGGTCTCCAGGCTCCTCA
CTCTGTCCAGGTAAAGAAGGCCAGCGGGTCTCAGGCTTTGCATGGTCTCCTTCTCGTTCT
GGATGCCTCCCATTCTGCCAGACCC

05_16536.1.edit

TCGACCGGCCGCCCCGGGCAGGTCAAGGAAGCACATTGGTCTTAGAGCCACTGCCTCCTGGA
TTCCACCTGTGCTGCGGACATCTCCAGGCAGTGCAGAAAGGAAGCAGGTCAAACCTGCTCA
GATCAGTCAGACTGGCTGTTCTCAGTTCTCACCTGAGCAAGGTCACTGTCAGCCAGAGTA
CAGAGGGCCAACTGGTGTTCTTGAACAAGGGCTTGAGCAGACCCTGCAGAACCTCTTTC
CGTGGTGTGAACCTCCTGGAAACCAGGGTGTTCATGTTTTCTCATAATGCAAGGTTG
GTGATGC

FIG. 15DDD

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AD

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08_16537.2.edit

TCGAGCGGTCGCCCGGGCAGGTTTCGTGACCGTGACCTCGAGGTGGACACCACCCTCAAG
AGCCTGAGCCAGCAGATCGAGAACATCCGGAGCCCAGAGGGCAGCCGCAAGAACCCCGC
CCGCACTGCCGTGACCTCAAGATGTGCCACTCTGACTGGAAGAGTGGAGAGTACTGGAT
TGACCCCAACCAAGGCTGC.AACCTGGATGCCATCAAAGTCTTCTGCAACATGGAGACTGGT
GAGACCTGCGTGTACCCCACTCAGCCC.AGTGTGGGCCCAGAAGAACTGGTACATCAGCA
AGGAACCCCAAGGAC.AAGAGGCATTGTCTTGGTTCGGCGAGNAGCATGACCCGATGGATT
CCAGTTTCGAGTATTGGCGGCC.AGGGCTTCCCGACCTTGCCGATGTGGACCTCGGCCCGG
ACCACCGCT

FIG. 15EEE

000T80" T089E950.

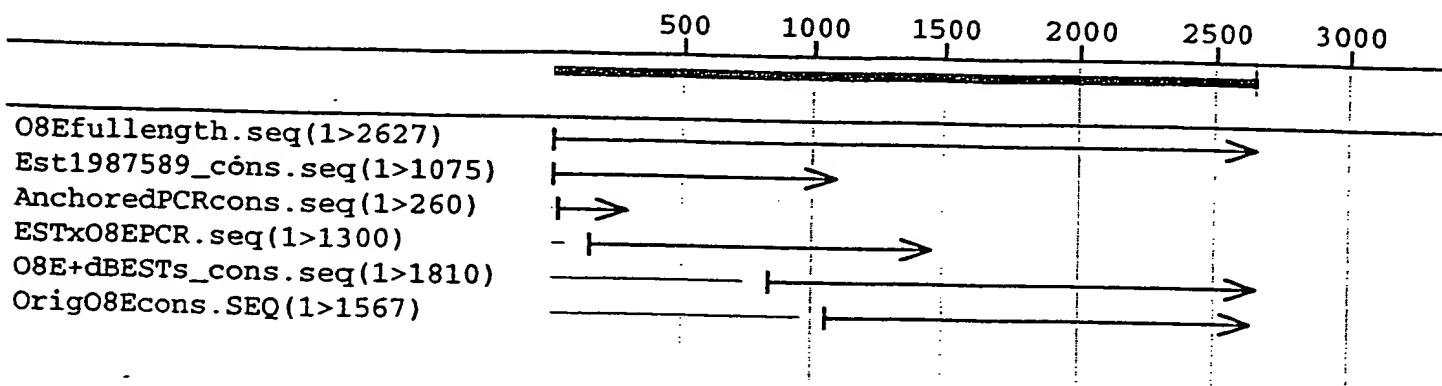


Fig. 1b

AR

O8E Epitope Mapping

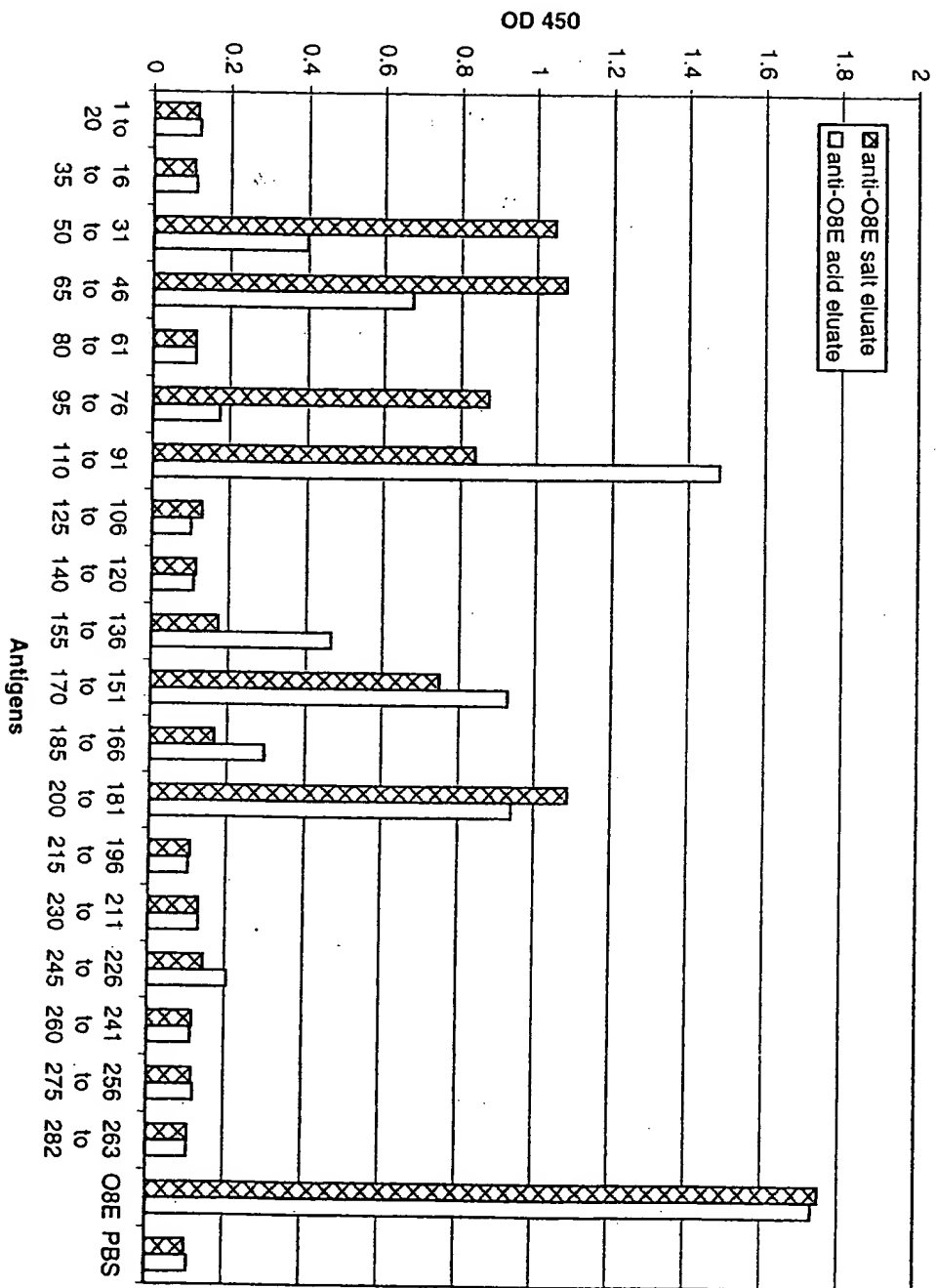


Fig. 17

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O8E Surface Expression

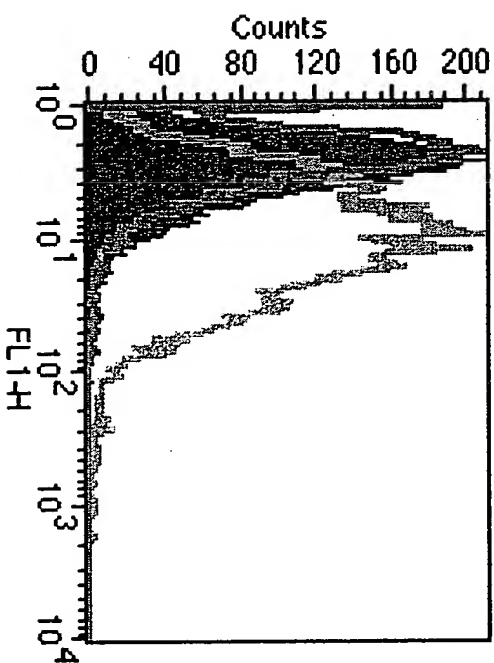


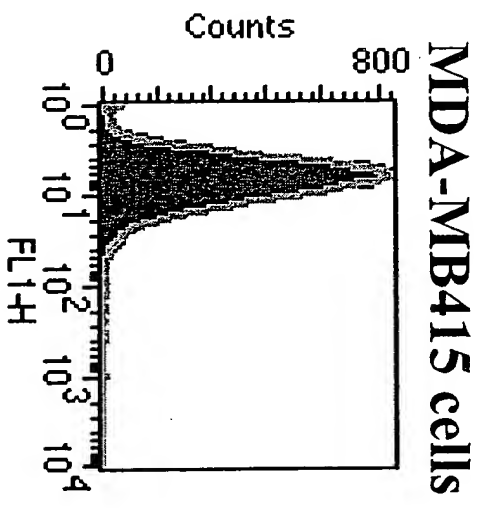
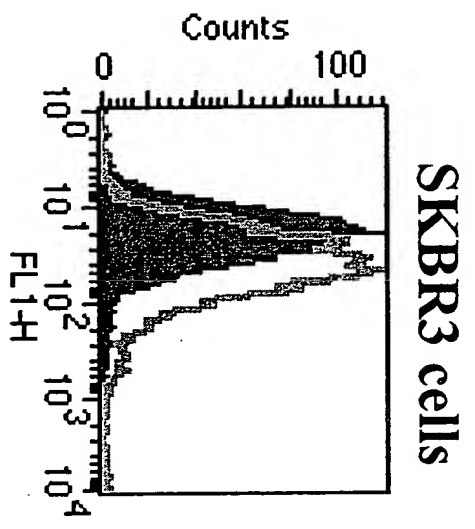
Fig. 18

- B305D/HEK stained with anti-O8E antibody
- O8E/HEK stained with anti-O8E antibody
- O8E/HEK stained with an irrelevant antibody

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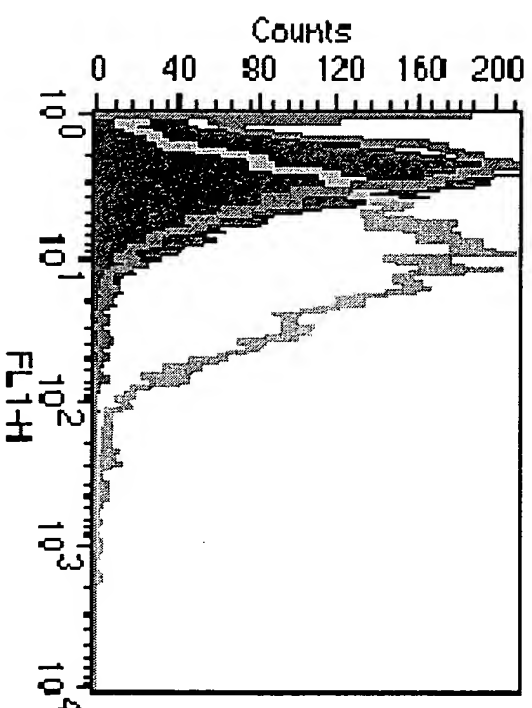
Surface expression of O8E

Fig. 19



Blue; irrelevant antibody
Green; anti-O8E antibody

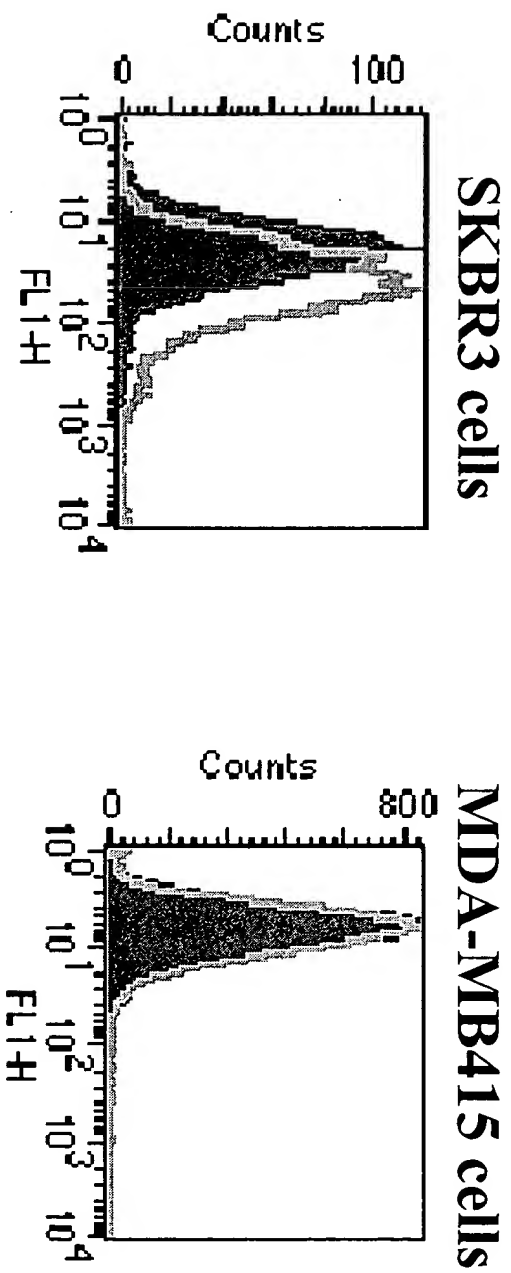
O8E Surface Expression



- B305D/HEK stained with anti-O8E antibody
- ▒ O8E/HEK stained with anti-O8E antibody
- ░ O8E/HEK stained with an irrelevant antibody

FIGURE 20

Surface expression of O8E



Blue; irrelevant antibody
Green; anti-O8E antibody

FIGURE 21